



CHIEF OFFICE,
LONDON:
42 CANNON STREET,
E.C.

BRANCH OFFICE,
AUSTRALASIA:
NORMANBY CHAMBERS,
MELBOURNE.

Subscription: **10/-** PER ANNUM, Post Free to any Part of the World.

Entered at Stationers' Hall.]

ESTABLISHED IN
ENGLAND ... 1859.
AUSTRALASIA ... 1885.

[Registered for Foreign Transmission.

No. 375. Vol. XXX.

JUNE 25, 1887.

{SUBSCRIPTION, 10s. PER ANNUM, INCLUDING
DIARY, POST FREE THE WORLD OVER.
{SINGLE COPIES, 4d. EACH POST FREE.

NOTICE.

ALLEN & HANBURY'S beg to inform their Customers that their Warehouse and Laboratories WILL BE CLOSED for STOCK-TAKING on the 29th and 30th of June, but urgent orders for single items will be attended to.

Wholesale and Export DRUGGISTS, Manufacturing & Analytical CHEMISTS,

SPECIAL MANUFACTURERS OF

COD LIVER OIL. CASTOR OIL.
EFFERVESCENT PREPARATIONS.
FLUID EXTRACTS.
HYPODERMIC SOLUTIONS.
JUJUBES, PASTILLES, AND LOZENGES.

INFANTS' FOOD (Malted Farinaceous).
MALT EXTRACT AND FLUID EXTRACT.
NITRITE OF AMYL and other CAPSULES.
TINCTURES, INFUSIONS, EXTRACTS.
And other Pharmaceutical Preparations.

ALLEN & HANBURY'S,

PLOUGH COURT, LOMBARD STREET, LONDON.

OLEATES

ALUMINIUM

BISMUTH

COPPER

IRON

LEAD

MERCURY

NICKEL

SILVER

TIN

ZINC

OLEIC
ACID

WHOLESALE
AND
EXPORT ONLY.

MAY & BAKER,
(W. G. BAKER, R. C. HEATH, T. TYRER, W. E. B. BLENKINSOP.)
GARDEN WHARF, BATTERSEA, LONDON.
CHURCH ROAD,

ACID
BENZOIC

FROM

Gum Benzoin

ZINC

SODIUM

POTASSIUM

LITHIUM

IRON

CALCIUM

AMMONIUM

BENZOATES

MEDALS—
1851, 1855,
1862,
1867, 1885.

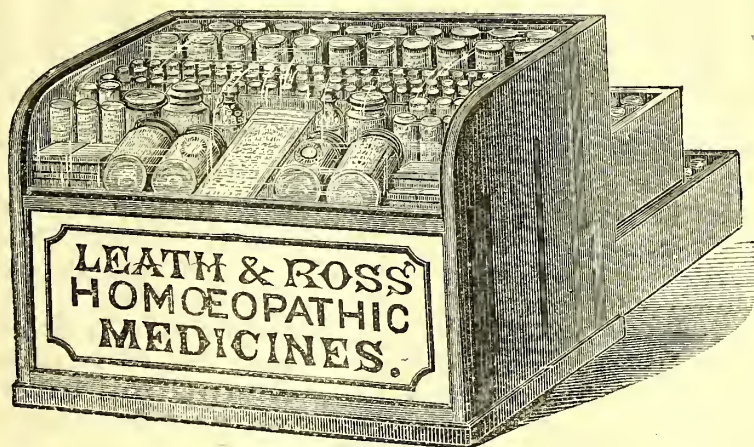
LEATH & ROSS'S HOMŒOPATHIC PHARMACIES

9 VERE STREET, W.,
And 5 ST. PAUL'S CHURCHYARD, E.C., LONDON.

OUR £10 10s. AGENTS' SHOW CASE.

Contents realise £17 17s. 8d.

[DIMENSIONS.—Length, 18 in.;
Breadth, 13 in.; Height, 13 in.



DESCRIPTION.—A Handsome Bent Glass Case, with three drawers, the contents of top drawer visible, the Pilules and Tinctures arranged in the other two in alphabetical order.

WHOLESALE PRICE LIST OF MEDICINES PUT UP READY FOR SALE.

GLOBULES or PILULES—

Sixpenny Tubes	...	2/9	per dozen.
Ninepenny „	...	4/8	„
Shilling „	...	5/-	„

TINCTURES or TRITURATIONS—

Sixpenny Bottles	...	2/9	per dozen.
Ninepenny „	...	4/8	„
Shilling „	...	5/-	„

PROPRIETARY ARTICLES.

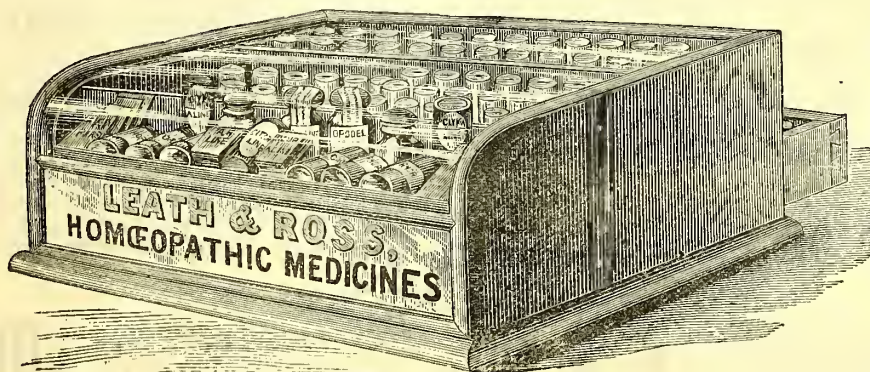
Neuraline	...	1/1½	Berberine	...	1/1½	Linimentum Auricularis	...	1/1½
Glykalline	...	1/1½	Chilblain Liniment	...	1/1½	Bryonia Liniment	...	1/1½
Phospho-muriate of Quinine	1/1½		Odontagie Essence	...	1/1½	Corn Eradicator	...	1/1½

All the above Proprietary Articles, 9/6 per dozen.

OUR £6 6s. AGENTS' SHOW CASE.

Contents realise £10 18s. 3d.

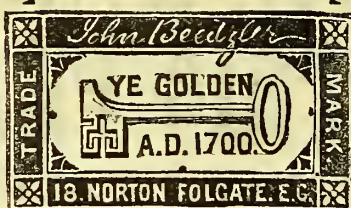
DIMENSIONS.—Length, 20 in.;
Breadth, 15½ in.; Height, 9½ in.



DESCRIPTION.—A Handsome Bent Glass Case, with two drawers, the contents of top drawer visible, the Pilules and Tinctures arranged in alphabetical order.

In Bots. 13½d. & 2/9.]

[In Bots. 13½d. & 2/9.

"BLOOD PURIFIER."**"BLOOD CLEANSER."**

BEEDZLER'S ALTERATIVE BLOOD MIXTURE

WHICH IS WARRANTED TO CURE

Ulcerated Sore Legs,
Cancerous Ulcers,
Scorbutic Disorders,
Abscesses and Boils,
Glandular Swellings,
Scarlatina and Measles,
And all Skin Eruptions
in Children from what-
ever cause.

Pimples on the Face,
Acne and Scrofula,
Scurvy and Old Sores,
Liver Complaints,
Erysipelas,
Scald-heads & Ringworms,
and all Blotches and Skin
Eruptions in Adults, from
whatever cause.

WHOLESALE OF ALL THE PATENT MEDICINE HOUSES.

In Bottles

13½d. & 2s. 9d.

**ANNETT'S
COUGH BALSAM,**

COMPOSED OF

SYRUP OF CAMPHOR,

IPECACUANHA,

BALSAM OF LIQUORICE,

BALSAM OF ANISEED,

BALSAM OF HOREHOUND,**BALSAM OF HONEY,**

AND

ESSENCE OF LINSEED.

**ANNETT'S
COUGH BALSAM**

As a remedy for Coughs, Colds, Asthma, Con-
sumption, Whooping Cough, Bronchitis, Loss of
Voice, and all affections of the

CHEST, THROAT & LUNGS**STANDS UNRIVALLED.**

This Balsam, which is prepared with great care and accuracy, will be found the most efficacious preparation that has hitherto been offered to the Public for any of the above complaints. Having sold it extensively for many years, and perceiving the great benefit derived from its administration, Mr. G. ANNETT is induced to give it greater publicity, fully assured, by so doing, it will soon become a Well-known and Popular Remedy. Its composition is of so innocent a nature, that it may be given to children with the happiest results. Persons whose mode of life exposes them to the variations of the atmosphere will, by its occasional use, become fortified against attacks of cold and inflammation. It invigorates and strengthens the Pulmonary Organs, and by its action on the Mucous Membrane dislodges phlegm, thereby affording great relief to patients.

PREPARED BY

JOHN BEEDZLER & CO., CHEMISTS, LONDON.
18 NORTON FOLGATE,

"BLOOD MIXTURE."

Reply to Circular of Mr. CLARKE'S Solicitors, dated 13th June, 1887.

MR. CLARKE'S SOLICITORS OMIT TO STATE THE FACT THAT OUR CLIENTS, MESSRS. JOHN BEEDZLER & CO., OF "THE GOLDEN KEYE," 18 NORTON FOLGATE, LONDON, E.C., ARE TAKING PROCEEDINGS TO HAVE THE WORDS "BLOOD MIXTURE" REMOVED FROM THE REGISTER OF TRADE MARKS. THE CASE IS COMPLETE AND IS IN THE LIST WAITING ITS TURN TO BE HEARD.

Clarke's circular does not draw attention to the fact that in the cases quoted the Defendants *consented* to the injunctions, which were obtained by arrangement and were not granted after argument in open Court.

Neither does the circular state the fact that in December last Clarke applied for an injunction against Mr. Geddes, a Chemist at Oldham, and that an arrangement was come to by which Mr. Geddes *consented* to an injunction, *but only on condition that Clarke paid Geddes' costs of the action.* At Clarke's instance this was afterwards advertised as a victory.

Can Clarke quote a single contested case in which, after argument in open Court, he has obtained an injunction for infringement of the words "Blood Mixture," unless there has been colourable imitation or other fraud?

Messrs. Beedzler, who deprecate anything in the nature of a fraudulent imitation, contend that the words "Blood Mixture" are not a good trade mark, that they are not fanciful, but are entirely and wholly descriptive of the article to which they are applied, and that there is no name which would more appropriately describe a medicine for the purification of the Blood.

Our clients are supported by:—

Professor Redwood

Joseph Ince, Esq.

Messrs. Savory & Moore

Messrs. Blake, Sandford & Blake

Professor Attfield

Messrs. Dinneford & Co.

Messrs. John Bell & Co.

Messrs. Twinberrow & Son

and by upwards of 130 other leading Chemists in London alone, all of whom are of opinion that the words "Blood Mixture" are words in common use, and purely descriptive of a preparation intended to act upon and purify the blood of a person taking it, and are certainly not fanciful words.

We may add that, for upwards of 80 years past, our clients and their predecessors in business have sold medicine under a descriptive title, of which the words "Blood Mixture" form part.

PLUNKETT & LEADER,

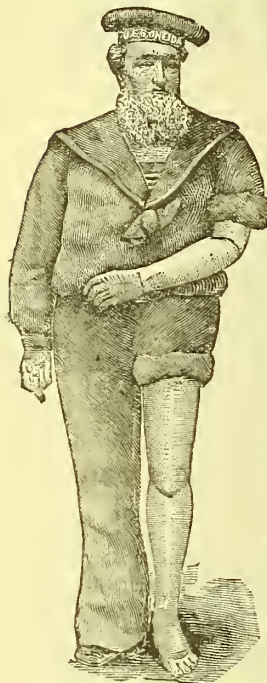
60 St. Paul's Churchyard, London, E.C.,

Solicitors for Messrs. JOHN BEEDZLER & CO.

June, 1887.

LEGS AND ARMS

(ARTIFICIAL),
WITH RUBBER FEET AND HANDS.



Indorsed by the U. S. Government, the Industrial Exhibition Commissioners of New York, Philadelphia, Atlanta, New Orleans, &c., the most Eminent Surgeons in the Country, the Press, and Over 8,000 Men, Women, and Children who wear them residing in all parts of the World.

The Rubber Foot and Hand possesses the most natural appearance, the greatest durability, and the greatest degree of comfort of all artificial limbs. Vast numbers of mutilated men and women are, by the use of rubber feet and hands, enabled to mingle with the rest of the world without betraying their loss or experiencing great inconvenience.

Farmers, mechanics, professionals, and even athletes who have lost one or more of their limbs are enabled to resume their vocations by the use of these remarkable inventions.

The accompanying engraving represents a sailor of the late rebellion who lost his leg and arm by the explosion of a shell in a naval combat. He has been practically restored to his usefulness by the application of Mark's Patent Artificial Limbs with rubber hands and feet.

Illustrated pamphlet of 160 pages, containing over 300 testimonials, sent free. Also a copyright Formula from which artificial limbs can be made and sent to all parts of the world without the presence of the patient, with guaranteed success.

A. A. MARKS,

701 Broadway, New York, U.S.A.

THE ISLINGTON GLASS BOTTLE CO.

(H. HARRIS & CO., Proprietors),

153 UPPER THAMES ST., CITY, LONDON, E.C.

Continue to supply their CELEBRATED

DISPENSING BOTTLES & PHIALS

AT LOWEST MARKET PRICES.

8-oz. and 8-oz., 8/ per gross; 3-oz. and 4-oz., 7/ per gross; White Phials at very low prices; Stoppered Rounds, Pomades, Graduated Measures, Panel Bottles, Castor Oil Bottles, Soda Water and Mineral Water Bottles, and all other kinds at very low prices. Write for Prices and see our Samples before ordering of any other house.

Bankers—London and Westminster Bank. Established upwards of 50 years.

WARREN'S REFINED WOOL FAT,

An excellent Remedy for Skin Diseases,

1/9 per lb., in 4-lb., 7-lb., and 14-lb. tins, tins free,

OFFERED BY

A. & J. WARREN,

Wholesale Druggists, 23 & 24 Redcliff Street, BRISTOL.

Licensed Makers of Methylated Spirit and Finish.

PROPRIETORS OF STODDART'S SEA SALTS.

Established nearly 40 years. Advertised continually.

1 1/2 d. Packets (in dozen boxes), 12/ per gross.
6d. or 2-lb. Boxes .. 4/ per dozen 4/- or 28-lb. Bags 36/ per dozen.
1/2 or 7-lb. " .. 9/8 " 8/- or 56-lb. " .. 72/ "
2/- or 14-lb. " .. 18/ " 16/- or 112-lb. " .. 144/ "

Right of manufacture, good will, &c., purchased March 15, 1886.
TERMS—Monthly Account, less 10 per cent. A reduction on 5-cwt. and 10-cwt. lots. Obtainable from Wholesale Patent Medicine Houses.
Carriage paid on orders for the above article amounting to £2 and upwards.
Handbills and Showcards furnished on application.

Wholesale London Agents—BARCLAY & SONS, 95 Farringdon St.

GLASS

Dispensing,
Drugs, Oils,
Mineral Waters,
Perfumery,
Patent Medicines,
&c., &c.

KILNER BROTHERS,

No. 18 Gt. N. GOODS STATION, KING'S CROSS, LONDON.



BOTTLES

FEEDERS in
immense variety
of styles.
Best Quality.
Low Prices.
Lists on application.



THE HEART SCENT BOTTLE

FOR SALTS

(REGISTERED)

FOR PERFUME

Is most admirably adapted for pocket use, combining great beauty of design with the maximum of convenience.

A LONG DESIRED REMEDY.

The Caps for these Bottles will be fitted with Patent Indestructible Washers, which entirely resist the action of Ammonia, thereby effectually preventing the corrosion of the Cork and the inevitable deterioration of the Salts.

Prices as follows, Plain or Fluted:—WHITE, 21/- per gross; COLOURED, 24/- per gross.
If put up in Dozen Boxes, 2s. per gross extra.

Orders may be sent to the Principal Wholesale Houses, or to the Patentee and Manufacturer,

R. H. BARRETT,

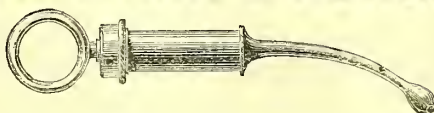
FLINT GLASS BOTTLE WORKS, THE OVAL, CAMBRIDGE HEATH, E.

N.B.—A remittance must accompany all orders.

TO THE RETAIL TRADE.

PLEASE REGISTER NAME OF

DR. OLDTMANN'S PURGATIVE,



For which you will, no doubt, shortly receive enquiries.

Retail Price of Purgative	2/6	} Per Dozen,
" " Syringe	1/-		31/6 net.

SOLE AGENTS FOR GREAT BRITAIN—

BARCLAY & SONS, 95 Farringdon St., London, E.C.

**GOLD MEDALS—DUBLIN, 1882; BOSTON, 1883;
LONDON (INTERNATIONAL EXHIBITION), 1884.**

**SIR JAMES MURRAY'S
PURE FLUID MAGNESIA.**

The ORIGINAL Article, as prepared by the Inventor, Sir James Murray, M.D.

For over 60 years in use as an excellent remedy in cases of

ACIDITY, INDIGESTION, HEARTBURN, GRAVEL, AND GOUT.

Sold by all respectable Chemists, in **LARGE-SIZED** Bottles (the 1s. size containing nearly

Double the quantity usually sold at that price), at 1/, 2/6, and 3/6 each.

CAUTION.—Observe that the Signature of the Inventor is on every label.

**SIR JAMES MURRAY'S
FLUID CAMPHOR**

Is a valuable remedy in cases of **SLEEPLESSNESS** and **WEAK NERVES**. Bottles, 1/ and 2/ each.

SIR JAMES MURRAY & SON, Chemical Works, Temple Street, Dublin.
BARCLAY & SONS, 95 Farringdon Street, London.

BATHING CAPS.
CIRCULAR SHAPE. Well-assorted Patterns.
PER DOZEN, 9/-
NORMANDY SHAPE. Assorted Patterns.
PER DOZEN, 12/-

WASHING GLOVES
Each dozen in six PATTERNS.
PER DOZEN, 6/6. Show Box.

We do not pay
Carriage on goods, but allow
10 per cent. for prompt cash.

A fully Illustrated Catalogue sent post free on application.

BOURNE, JOHNSON & LATIMER,
34 & 35 FURNIVAL STREET,
LONDON,
E.C.

SPONGE BAGS.
No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. (CHECK) 14/- per dozen.

TRUSSES.
Good quality. Single, 12/6; Double, 23/-
Not less than 1 dozen supplied at these prices.

CIRCULAR—Single, 12/6; Double, 23/-

BY ROYAL



LETTERS PATENT.

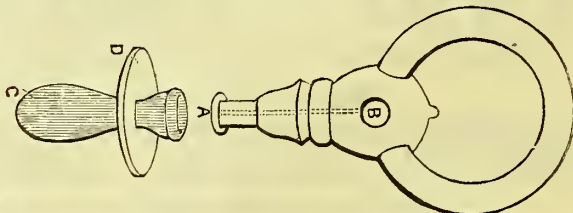
THE "LILY" BABY COMFORTER.

IMPORTANT CAUTION TO CHEMISTS AND OTHERS!!

The PATENTEE claims to be the INVENTOR of a BABY COMFORTER, having a passage for the admission of air into the Teat, by which means

THE TEAT ALWAYS RETAINS ITS PROPER SHAPE.

Chemists are cautioned against offering for sale any others having a passage for the admission of air.



This engraving represents the mount and unperforated teat without the rattle. A. B. shows the passage, drilled for ingress and egress of air into and from the teat.

Vegetable Ivory, with or without Rattle, retail at 9d.; with soft rubber gum ring, retail at 6d. (These sell well; they are good value for money.)

Vegetable Ivory, superior quality, for presentation, each in neat slide boxes, retail at 1/-, including Natural History Sheet for the Nursery, 36 in. by 23 in., 96 Illustrations.

Trade terms, 4/-, 6/-, and 8/- per doz. The 6d. and 9d. on handsome cards of 1 doz.

PATENTEES—

E. MARRIOTT & CO., HASTINGS.

Wholesale—Patent Medicine Warehouses or Druggists' Sundriesmen.

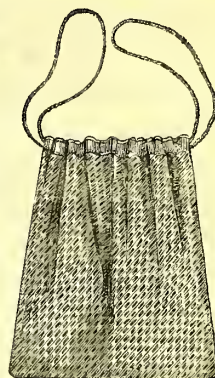
S. MAW, SON & THOMPSON'S

SUPERIOR QUALITY

WATERPROOF CHECK SPONGE BAGS.

No. 1	2	3	4	5	6
7×6	8×7	9×8	10×9	11×10	12×11 inches.
6/0	7/0	9/0	11/0	12/6	16/0 per dozen.

For other descriptions see Quarterly Price Current, page 67.



S. MAW, SON & THOMPSON'S

BRIGHTON SPONGE BAGS,

WITH BALL CLASP FASTENINGS, NICKEL-PLATED.

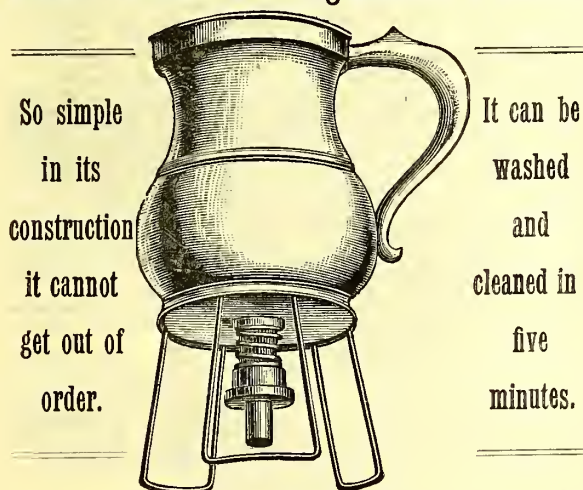
	No. 2	3	4	5	6
	8×7	9×8	10×9	11×10	12×11 inches.
CHECK...	... 16/0	18/0	20/0	26/0	28/0 per dozen.
PAISLEY	... 18/0	20/0	22/0	28/0	32/0 „



THE BRIGHTON SPONGE BAG.

7 to 12 ALDERSGATE STREET, LONDON.

**HOW TO AVOID
DAMAGE! DANGER!! DIRT!!!**
USE
Maud's Patent Self-Acting Measure & Funnel.



So simple
in its
construction
it cannot
get out of
order.

It can be
washed
and
cleaned in
five
minutes.

By the use of the above simple apparatus not only is all waste and danger prevented, but where a number of Bottles require filling at one time, a very great saving of time and labour is effected.

Messrs. OLDFIELD, PATTERSON & Co., Wholesale Chemists, Manchester, write to say that their hands can do nearly half as much more work in the same time as by the old funnel process. To those selling petroleum, or other offensive liquids, its use will prove a great boon, as there is no need to soil the hands in measuring. Made in Tin, Copper, Pewter, Glass, &c., at prices varying from 2/6 the pint measure.

PATENTEE AND MAKER,

W. R. MAUD, PONTEFRAC, YORKSHIRE.

Particulars and prices on application.

PROFITABLE! SALEABLE! EFFICACIOUS!

THE GENUINE



WORM CAKES.

(Trade Mark and Title Registered.)

The above preparation for Children, made to sell at **One Penny** each, is the most perfect article of its kind offered. Children eat them with the greatest avidity, and their success is unfailing. Each cake is enclosed in a small parchment envelope, with full directions. Put up in neat Counter Boxes containing 3 dozen cakes each.

Price, 6/ per gross.

In quantities of 10 gross own name attached without extra charge.

Samples sent free on application.

MANUFACTURED BY

W. R. MAUD, Chemist, Pontefract, Yorkshire.

WESTMINSTER COLLEGE.

LABORATORIES AND SCHOOL BUILDINGS:

TRINITY SQUARE, BOROUGH, LONDON, S.E.

The next Session will commence on Monday, September 5.

Students desiring to enter the College at the commencement of the next Session should send in their names without delay, so that benches may be reserved for them.

The lists of successful Students from this College, which are published in the PHARMACEUTICAL JOURNAL after examination, furnish a sufficient test of the thoroughness of the Education imparted, and of the success which has attended Candidates presenting themselves for examination.

PASS LIST.

At the last Examination 2 MAJOR Students presented themselves and passed:—Messrs. J. L. ARMITAGE and P. WATSON.

The following 27 MINOR and 6 PRELIMINARY Students were also successful in passing their Examinations:—

A. E. BEARD.
H. R. BROAD.
J. E. J. BURN.
F. L. CARTER.
R. C. DAVENPORT.
E. EDWARDS.
F. EVERINGHAM.
J. H. FILMER.
J. W. FRANKLIN.
PRELIMINARY.—W. H. BELTON, H. O. COWLES, J. R. MCKINLAY, F. MASTERS, T. W. ROBSON, W. WILSON.

W. E. GOODWILL.
A. S. GLOVER.
A. W. HANKINSON.
J. B. HARRIS.
R. G. HINDLE.
E. JEFFERY.
T. KITFOW.
J. E. MALLINSON.
W. PESCOD.

G. E. ROSE.
R. F. SCOTT.
O. R. SHARMAN.
J. H. SMITH.
A. R. TAYLOR.
A. E. WALKER.
G. H. WILKINSON.
JNO. WRIGHT.

WILLS' UNIVERSAL POSTAL SYSTEM.

For the Preliminary, Minor, and Major Examinations.

THE MINOR LECTURES ARE IN ACCORDANCE WITH THE B.P., 1885.

Gentlemen who reside in the country, and are unable to attend a School of Pharmacy, may become Corresponding Students of this College on payment of a fee of £1 1s. for the Minor, and 10s. 6d. for the Preliminary and Major Examinations.

The Minor and Preliminary Courses consist of 100 printed Lectures on all the subjects required for the Examinations.

EXTRACTS FROM THE PRESS.

"The idea on which this system is based is to arrange for each student his course of study for him, and to provide him generally with that knowledge which he needs to know."—*Chemist and Druggist*.

"The postal system of lectures, specimens, autograph prescriptions, &c., is freed as much as possible from all suspicion of 'crum.'"—*Chemists' Journal*.

For Particulars apply to MESSRS. WILLS & WOOTTON.

THE LIVERPOOL SCHOOL OF PHARMACY, 36 OXFORD STREET, LIVERPOOL.

STAFF OF TEACHERS.

THE PRINCIPAL—J. S. WARD, Ph.Oh., Prize Medallist, &c.

DEMONSTRATORS—MR. J. T. HORNBLLOWER, MR. HAROLD WYATT.

FOR PRELIMINARY PUPILS—MR. PENDLEBURY.

ISSUE OF NEW SYLLABUS.

Owing to the continued development of the School it has become necessary to publish a new Syllabus. This is now ready, and contains full particulars of (A) the rise and progress of the School;

(B) the method of teaching adopted; (C) the various classes for Major, Minor, and Preliminary Pupils, with time-tables and fees; (D) the curriculum for each class. This will be sent post free upon application to the Principal, and every Student should write for one, as the detailed curricula will serve as an excellent guide to him in his private study.

With 62 Illustrations. Crown, price 7s. 6d.

A TEXT-BOOK OF ORGANIC MATERIA MEDICA. Comprising a description of the VEGETABLE and ANIMAL DRUGS of the BRITISH PHARMACOPOEIA, with some others in common use. Arranged Systematically and especially Designed for Students. By ROBERT BENTLEY, M.R.O.S.Eng., F.L.S., Fellow of King's College, London; Honorary Member of the Pharmaceutical Society of Great Britain, &c., &c.; one of the three Editors of the "British Pharmacopoeia," 1885.

LONDON: LONGMANS, GREEN & CO.

SPONGE.

M. PETERSON & CO., Importers,
66 SOUTH JOHN STREET,
LIVERPOOL.

For Home, Foreign, and Colonial Markets.
Wholesale only.

SOUTH LONDON SCHOOL OF PHARMACY.

THE SILVER MEDAL

Of the Institution will be open to competition by the holders of Bronze Medals gained during the present Session.

The Examination will be written and practical, and will take place in the Laboratory of the School immediately after the closing of the Session.

Intending Candidates should give notice not later than July 1st, to

W. BAXTER, Secretary,

325 Kennington Road, S.E.

"CONCILIO ET LABORE."

THE MANCHESTER COLLEGE OF PHARMACY,

225 & 227a OXFORD STREET, MANCHESTER.

Director—MR. W. SPENCER TURNER, Pharm. Chemist.

Deputy—MR. G. CLAYTON, Pharm. Chemist.

At the April Examinations Eight men from this School passed the Minor, Three the Preliminary, and Three the Apothecaries' Hall.

At this month's Examinations Two students from this School passed the Minor, viz.:—

MR. F. RIDEAL, Manchester. | MR. S. SOUTHAM, Manchester.

The Classes for the July Examination are now full.

The next Session of the School will begin on September 1.

THE LONDON HOMŒOPATHIC HOSPITAL AND MEDICAL SCHOOL, GREAT ORMOND STREET.

A NEW WARD, unoccupied for want of funds, is much needed for Male Patients, and will be opened as soon as sufficient funds to support it are received. The Hospital now contains eighty beds. Trained Nurses are sent out at moderate fees for Medical, Surgical, or Accommodation cases, the latter specially Certificated.

G. A. CROSS, Secretary.

"AN AWFUL MISTAKE"

Is made daily by Chemists retailing rubbishy nostrums, when by a small outlay and utilising a little tact genuine preparations of real medicinal worth might be sold, bearing larger profit, giving more gratifying results, and hence an ever increasing demand. Buy Brooks' reliable Recipes, every one of which is guaranteed. All preparations in actual commerce. "New Remedy for Toothache,"—Gives instant ease, simple, safe, and inexpensive. "Occasional Pills" (for Ladies).—Physician's prescription: always produce desired result—preferred to Welch's. "Embrocatic Alb." (like Elisha's).—Milk white, creamy, inseparable, and cheaply produced. "Ringworm Specific."—Guaranteed safe, and certain cure—one trial will prove. "Corn Cure."—Differs from any advertised formula, pays well cleanly, painless, and rapid. "Rheumatic Embrocation."—Kills pain, and reduce inflammation; costs under 8d. per pint. "Red Rose Lotion" (resembles Sulpholine).—For all skin ailments, sunburn, freckles, redness, &c. The above seven sent as sample for 5s. (special offer); detailed List of 380 Recipes post free anywhere. Recipes 1s. 1d. each, 3 for 2s. 6d., free with full instructions.

T. BROOKS, Chemist, Louth, Lincs.

J. RAPHAEL & CO.,

CHEAPEST HOUSE IN THE TRADE FOR

**SPECTACLES, FOLDERS, FIELD,
OPERA, and MARINE GLASSES.**

WHOLESALE ONLY.



REPAIRS RETURNED SAME DAY.
13 OXFORD STREET, LONDON, W.
NEAR TOTTENHAM COURT ROAD.

Vide "CHEMIST AND DRUGGIST," April 16, 1887.

Notes by "HEDER."

"SAVE YOUR SEALING WAX"

by Stamping the top of your Dispensing Corks. A neat design in Indiarubber, carefully placed on the cork, has a very good appearance, and SAVES MANY POUNDS OF VERMILION WAX."

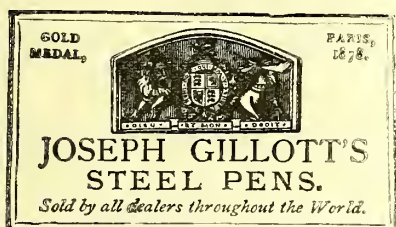
SPECIMENS.



On Brass Mount, with Box, Pad, Ink, and Distributor, complete, 3/6.

POLLARD'S RUBBER STAMP WORKS

30 & 32 LUDGATE HILL, LONDON, E.C.



CHEMISTS'

HANDBILLS

Crown 8vo. } 5,000 6/9. 10,000 11/6
7½ by 4½ } 5,000 11/6. 10,000 18/-
Demy 8vo. } 5,000 11/6. 10,000 18/-
8½ by 5½ }

CHEMISTS' MEMORANDUM FORMS.

Litho, 1,000, 9/6	3,000, 18/-	5,000, 25/-
Type, 1,000, 6/-	3,000, 15/-	5,000, 20/-

CHEMISTS'

LABELS

Type Slips, 10,000 in ten kinds for 10/-

JAMES TOWNSEND,
MEDICAL LABEL PRINTER,
EXETER.

FORD, SHAPLAND & CO.,

MEDICAL LABEL AND GENERAL PRINTERS,
6, GREAT TURNSTILE, LONDON, W.C.

CHEMISTS' FLY PAPERS,

Chemically prepared and guaranteed to be thoroughly effectual; printed with own name and address and advertisements on the four sides. Specimens and Prices on application.

CHEMISTS' COUNTER BILLS,

On GOOD WHITE PAPER, at LOWEST PRICES EVER OFFERED.

10,000	CROWN Svo. BILLS (7½ in. x 5 in.)	12s. 6d.
10,000	DEMY Svo. BILLS (9 in. x 5½ in.)	18s. 0d.

All other Sizes at equally Low Rates. Samples and Prices on application.

Jubilee Tinted Counter Bills

Printed in TWO COLOURS on Tinted Papers. Write at once for Specimens and Prices.

LABELS of every description. SLIP LABELS, 10,000 (10 kinds), 1s. per 1,000. PRICE LISTS, Pamphlets, circulars, Billheads Memorandums, Cards, and all kinds of Printing and Stationery required by Chemists at most Moderate Prices. STOCK SHOW CARDS, Gold on Black, Gilt Bevelled Edges, size 10 in. x 6½ in., for various specialties; Samples, 9d. each, post free.

AGENTS FOR REGISTRATION OF TRADE MARKS.

DESIGNS FURNISHED IF REQUIRED.

MAWSON'S NEW FILTERS.

THE ONLY FILTERS PERFECTED BY THE AID OF EXACT ANALYSIS.



Glass (Plain) 4/6.
Engraved .. 6/6.



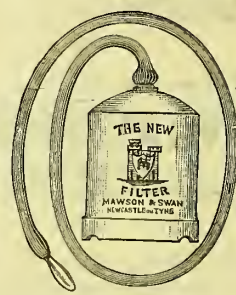
Earthenware (Cream).
1 2 3 4 6 gall.
14/6, 21/, 27/, 35/, 50/ each



Earthenware (White,
Decorated).
1 2 gall.
35/- 45/- each



Glass (Plain), 5/6
Engraved 7/6



Tourist's (Pocket), 3/6.
In case, with shoulder cords.

THE ABOVE ARE RETAIL PRICES.

MAWSON, SWAN & WEDDELL, NEWCASTLE-ON-TYNE.

WHOLESALE AGENTS—

[2]

London.—Maw, Son & Thompson; Barclay & Sons; Lynch & Co.; Bentley & Son; Bourne, Johnson & Latimer; Burgoyne & Co.; Evans Lescher & Webb; Toogood & Son.

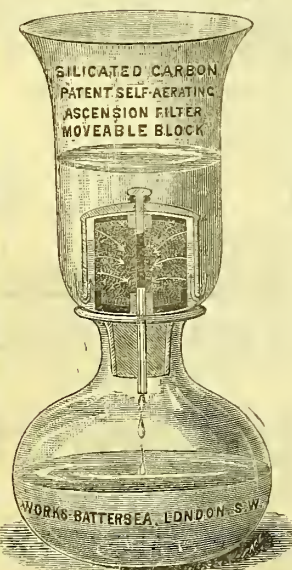
Liverpool.—Symes & Co.; Evans, Sons & Co.; J. H. & S. Johnson. Manchester.—Woolley, Sons & Co. Birmingham.—Southall Bros. & Barclay. Bristol.—Ferris & Co. Edinburgh.—Duncan, Flockhart & Co.; Raimes & Co. Glasgow.—Glasgow Apothecaries Company. Belfast.—Grattan & Co. Cork.—Goulding, Bannister & Co., Limited.

COLONIAL AND FOREIGN. Bombay.—Kemp & Co., Limited. Calcutta.—Smith, Stanistreet & Co. The Cape.—B. G. Lennon & Co., Cape Town, Port Elizabeth, and East London. Natal.—E. S. T. Stantial, Pietermaritzburg. Hong-Kong, China, and Manilla.—Watson & Co., Limited. New Zealand.—Kempthorne, Prosser & Co., Dunedin, Christchurch, Wellington, and Auckland. Spain.—José Bowron, Murcia. Denmark.—Leopold Gyth, Copenhagen, &c., &c.

AERATED AND FILTERED WATER.

SILICATED CARBON PATENT SELF-AERATING MOVEABLE BLOCK FILTERS.

LIBERAL DISCOUNT TO THE TRADE.

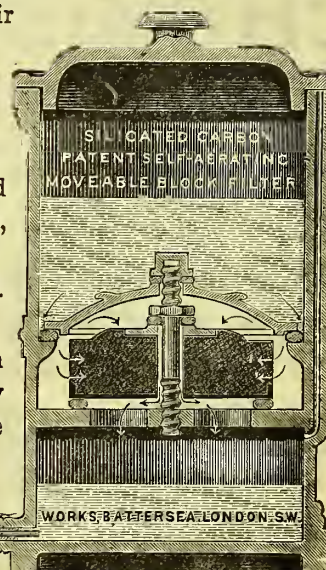


Glass Table Filters.

Each time that the Filter is filled the air under the Aerator Cover is forced in the direction shown by the arrows through the Silicated Carbon Block, so that the Water is & Filtered simultaneously, rendering it BRIGHT, & AERATED PURE, PALATABLE.

The Silicated Carbon Block can be instantly removed, leaving the whole of the Filter OPEN for inspection and cleansing.

WRITE FOR FULL ILLUSTRATED PRICE LISTS TO THE



Domestic Filters.

LIBERAL DISCOUNT TO THE TRADE.

SILICATED CARBON FILTER CO. WORKS: BATTERSEA, LONDON.

TO THE
CHEMISTS & DRUGGISTS
 OF
GREAT BRITAIN.

TELEGRAPHIC ADDRESS:
COLEMAN,
GEORGE'S, NORWICH.

*St. George's Middle St.,
 NORWICH,
 January 19th, 1887.*

For some time past we have been in communication with the Inland Revenue, Somerset House, respecting the manufacture of our "Liebig's Extract of Meat and Malt Wine, with Quinine." An objection was raised to the employment of Port Wine as it contained Tannic Acid and might precipitate the Quinine, so we substituted Sherry, and have received the following important letter from the Board:—

"INLAND REVENUE,
 "SOMERSET HOUSE, LONDON, W.C.,
 "18th January, 1887.

"Gentlemen,—Your further letter of the 18th ultimo having been laid before the Board of Inland Revenue, I am to acquaint you in reply that, although Tannic Acid is not wholly absent from the Wine used in the preparation of the fresh sample of 'Liebig's Extract of Meat and Malt Wine, with Quinine,' forwarded to this Office by the Supervisor at Norwich on the 31st ultimo, the Wine is so far free from it as to satisfy the objection raised in Mr. Forsey's letter of the 17th ultimo. So long, therefore, as the article is prepared in accordance with the sample referred to, **THE BOARD WILL NOT REQUIRE A WINE LICENCE** to be taken out to authorise its sale. "I am, Gentlemen,

"Your obedient Servant,

"W. B. HEBERDEN,

"Messrs. Coleman & Co. "Assistant Secretary."

NO LICENCE IS THEREFORE REQUIRED for the sale of our "Liebig's Extract of Meat and Malt Wine, with Quinine." Your orders will oblige either direct or through the Wholesale Houses.

Yours most obediently,

COLEMAN & CO.

*N.B.—The Wine is sold in Bottles, 2/9 and 4/6 each;
 Trade prices on application.*

P.S.—We are willing to pay the entire cost of a Retail Licence (the holder of which can sell any kind of Wines), if an assorted order of 12 dozen is sent us of any of our preparations. List on application. Our Liebig's Extract of Meat and Malt Wine WITHOUT Quinine still commands a very large sale.

12½ gals. for £1, Cask free.
SPECIAL LINES FOR CASH BUYERS.
TYRER'S
WORCESTER SAUCE,
YORKSHIRE SAUCE,
"BOROUGH" KETCHUP.
BEST VALUE THAT MONEY CAN PURCHASE.

Prices and Samples sent free of all cost by
PETER TYRER, The "Borough" Ketchup & Sauce Maker,
LONDON, S.E.



TRADE MARK.

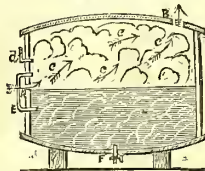
MASON'S
ESSENCE
OF BEEF.

CONCENTRATED BEEF TEA;
MEAT LOZENGES, &c.
 The Trade would study their interests by introducing our preparations to their customers, for the reason that they are not only the best made, but at the same time the cheapest, and bear a larger margin of profit. A small trial order will prove the truth of the above statement.

Proprietors of the Delicious

"O. K." SAUCE.

GEORGE MASON & CO., Ltd., 417 KING'S ROAD, CHELSEA, LONDON, S.W.



NEW METHOD OF MAKING VINEGAR,
BY THE REVOLVING APPARATUS
(Michaelis' Patent).

For further particulars

See the Chemists' and Druggists' Diary, 1884, page 274,
 OR APPLY TO

PAUL ROTHERMEL,
 105 (late of 27) LEADENHALL ST., LONDON.

MUSTARD.
FINCH, RICKMAN & CO.'S
Genuine Qualities

Are made from the finest mustard seeds only. Their compounds, as manufactured for upwards of a century, are guaranteed free from all ingredients imparting spurious heat, and are therefore equally suitable for both table and medical purposes.

TELEGRAPHIC ADDRESS—"UNPUFFED."

FINCH, RICKMAN & CO.,
 6 Broken Wharf, Upper Thames St., London.

JEWSBURY & BROWN'S (MANCHESTER) SPARKLING TABLE WATERS, UNRIVALLED FOR PURITY AND QUALITY.

SODA WATER.
SELTZER WATER.
POTASH WATER.
LITHIA WATER.
SIMPLE
AERATED WATER.



LEMONADE.
GINGER ALE.
QUININE TONIC.
GINGER BEER.
HOREHOUND BEER.

EXTRACTS FROM ANALYTICAL REPORTS.

"The examination of the Waters which I have made has satisfied me that they have been prepared with the greatest care, and are of excellent quality."

FRANÇOIS JONES, F.R.S.E., F.C.S.

"On the whole, I have no hesitation in stating that your Aerated Waters are of the highest standard of purity which is practically attainable."

LOUIS SIEBOLD, F.I.C., F.C.S.

"The Lemonade is, for flavour and general excellence, superior to any similar compound which I have examined, and contains no acid but Citric Acid."

"I took a sample of the water used in your manufactory, in the preparation of the Aerated Waters, and found it, as was the case with the completed compounds, entirely free from lead, copper, or any injurious matter whatever."

C. ESTOUBERT, F.C.S., F.C.I.

J. & B.'s Syphons are mounted with PURE BLOCK TIN, thus ensuring absolute immunity from dangerous metallic contamination

113 MARKET STREET, and 44 DOWNING STREET, MANCHESTER.

NESTLE'S MILK FOOD FOR INFANTS.

ALSO WELL ADAPTED FOR CHILDREN AND INVALIDS.

Prepared at VEVEY, SWITZERLAND.



The only Perfect Supplement and Substitute for
Mother's Milk.

Easy of Preparation—requires merely the addition
of water.

UNIVERSALLY RECOMMENDED BY PHYSICIANS.

BRAND & CO.'S
PEPTONES
OF
BEEF,
MUTTON,
VEAL,
AND
CHICKEN.

To H.R.H. The Prince of Wales, The Empress of Germany, &c.



HAY'S HOP ALE ESSENCE

FOR THE MANUFACTURE OF THE FINEST AERATED HOP ALE.
Is made from the Choicest Hops Grown.

HAY'S HOP ALE ESSENCE

"Supplies an excellent
stomachic, appetising, and
agreeable summer drink."

Brewers' Journal.

"A beautiful es-
sence, has a fine Hop
Aroma, and is quite a
pharmaceutical triumph."

The Chemist and Druggist.

"For this Essence a bril-
liant future may be anti-
cipated. It possesses charac-
teristics very seldom to be
met with."

Mineral Water Trade Review.

"For flavour, strength, and
real solubility, this Essence
leaves nothing to be desired."

British & Colonial Druggist.

TRADE MARK



HAY'S HOP ALE.

"This is an excellent Non-
Alcoholic beverage."

The Lancet.

"Evolves a delicious aroma
of Hops."

Medical Press.

"It is a Fine Bitter
Beer, pouring out with a
rich creamy head."

British & Colonial Druggist.

"Possesses the Aromatic
bouquet and pleasant flavour
of the genuine Hop."

Mineral Water Trade Review

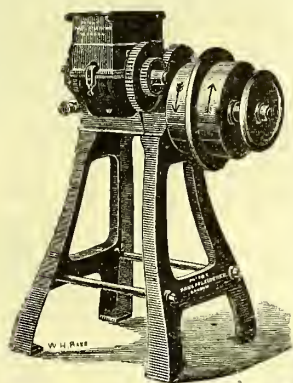
"Is a nearer approach to
Bass or Allsopp's Ale than
any non-intoxicants preced-
ing it."

Eastern Morning News.

Trade Price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s.

Quantity required, two fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles.

**W. HAY, Manufacturing Chemist, Beverley Road, HULL,
ENGLAND.**



CHEMISTS' MACHINERY.

PILL MASS KNEADING MACHINES.

PILL MAKING MACHINES.

DRUG GRINDING MACHINES.

SIFTING MACHINES.

FULL PARTICULARS OF ABOVE ON APPLICATION TO

WERNER & PFLEIDERER, 86 Upper Ground St., LONDON, S.E.
Blackfriars Bridge,

THIRTY-THREE PRIZE MEDALS AWARDED to the FIRM.

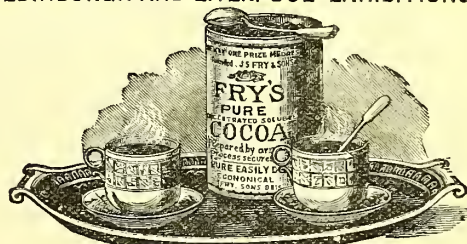
FRY'S

Pure Concentrated

COCOA

Prepared by a new and special scientific process securing extreme solubility, and
developing the finest flavour of the cocoa.

GOLD MEDALS
EDINBURGH AND LIVERPOOL EXHIBITIONS.



TRADE MARK.

J. S. FRY & SONS, BRISTOL, LONDON, & SYDNEY, N.S.W.

"THE BEST NATURAL APERIENT."

Persistent attempts are made by interested parties to deceive the public by offering Natural Mineral Aperient Waters with marks, names, and designations very similar to those which are used by the **APOLLINARIS COMPANY, LIMITED**, for the **NATURAL MINERAL APERIENT WATERS** imported by them.

Under these circumstances the **APOLLINARIS COMPANY, LIMITED**, feel compelled to caution the public that the **HUNGARIAN BITTER WATER** sold by the **COMPANY** always bears the name of the **APOLLINARIS COMPANY, LIMITED**, on the Label.

ROBINSON'S ORANGE WINE.

Specially prepared for Quinine Wine, does not deposit, will keep good in any climate, and well adapted for Export Trade. Supplied in Casks containing 9, 18, 30, 60, or 120 Gallons. Terms on application.

PHARMACEUTICAL SHERRY WINE.

This Wine is well adapted for Pharmaceutical Preparations, and is the strength ordered by the B.P. Price, in 6-Gallon Casks, 5/ per gallon; in 2-Gallon Jars, 5/6 per gallon, carriage paid. Casks charged 7/6, Jars 2/6, and allowed if returned. Cash or satisfactory reference to accompany order. **B. ROBINSON, Distiller and Brewer of British Wines, Church St., Pendleton, Manchester.**

BY ROYAL LETTERS PATENT.

HASSALL & Co.'s PHOSPHO-CITRIC ACID

To Supersede Citric & Tartaric for Aerated Waters. It is recommended by the most eminent Physicians in Great Britain.

THE BEST HOUSES IN THE TRADE HAVE ALREADY ADOPTED IT.

It is thoroughly beneficial, and far better suited to the requirements of the Mineral Water Trade; it is free from lead and all other minerals and cheap acids; it is fully £8 per cwt. cheaper than Citric Acid, which mostly contains lead.

WE COMPLETE ON QUALITY AND PRICE.

Testimonial from **Mr. A. J. MASON**, Chemist, of Bexley Heath.

"Having gone carefully into the matter I have no hesitation in saying that the patentees have in no way overrated the merits of their acid. There is no doubt in my mind that Phospho-citric Acid produces a much higher class beverage—giving, as they say, 'greater body'—the one thing needful in this class of goods; also a fruity character and mellowness I have never been able to secure with the ordinary acids. The aroma is also more pronounced. 'Purity' was my great incentive to giving the acid a trial, but I found 50s. or 60s. (citric at 1s. 7d. per lb.) per cwt. an economy not often secured under such favourable circumstances."

Why pay 2/8 per lb. for Citric, when a purer and more efficient Acid can be bought at about $\frac{1}{3}$ the price?

Beware of Imitations.

Write for Pamphlet and Testimonials.

3-oz. Sample will be sent on receipt of Postage (3 Stamps), or 14 lbs. on approbation.

HASSALL & CO., Great Northern Goods Depot, King's Cross, LONDON.

Reuter's Cables and Inland Telegrams—"REMPJARON LONDON."

NEW YORK—F. J. MACNAUGHTAN, 20 CEDAR STREET.

146 MINORIES, LONDON E.C. New York, Sydney & C.

SODA WATER MACHINERY

AND ALL ACCESSORIES FOR THE TRADE

BRATBY & HINCHLIFFE

HEAD OFFICE
SANDFORD ST. ANCOATS, MANCHESTER

BOXES BOTTLES MACHINERY, ESSENCES
Catalogues, Circulars, Testimonials
Post Free

J. DUNLOP MITCHELL & CO.,

Office and Show Rooms: 130 to 136 INGRAM STREET, GLASGOW.

THE BEST & HANDSOMEST WATER FILTERS EVER MADE.

No one should drink unfiltered water. It is an acknowledged fact that nearly all our illnesses originate by drinking impure water. No house or establishment should be without one or more of our new "Mountain Dew" or "Rippling Rill" (Registered) Water Filters, entirely made of glass, in 1 and 2 gallons capacity.

FEEDING BOTTLES—Tinted, 24/ per gross; White Glass, 26/6.

BOTTLES of every description of shape and size, panelled and plain, stoppered and not, also with and without white metal screw tops, at lowest prices. Show and specimen Bottles, Glasses, and Jars in great variety; also Laboratory Glassware. Show and Stock Bottles and Barrels, after the style of Illustrations, in White Glass $\frac{1}{2}$, 1, 2, 3, and 4 gallons capacity, fitted with glass stoppers and silvered taps.

Perfect Security by Post and Rail. Corrugated paper-lined Boxes made any size, and fitted for one or more bottles. Also Wooden Post Boxes.

SPECIALTIES.

Illustrations, Samples, and Prices on application.

Correspondence solicited.

AGENTS WANTED in the Colonies and Abroad.



MANN'S PERFUMES.


The accompanying cut represents a facsimile of our Pound Bottle, containing 18 fluid ounces, with elongated and etched stopper for trying the odours. We have arranged our Perfumes into ranks according to popularity and demand; those having the most ready sale comprise the first rank, then, next in order, the second rank, then the third rank. This plan gives the Druggist at a glance a more comprehensive idea of our line, and also enables him to make his selection according to the general popularity of the odours. We would always advise a full line of all the perfumes kept in stock, as the second and third ranks contain many odours desired by persons of special tastes, and, while they are not generally of as ready sale as those of the first rank, yet they are always staple. The goods are all made of the same degree of strength, and are intended to be of equal desirability, yet some will take precedence in popular favour over others. We make only the finest quality of Perfumes, which are especially designed to meet the demand of the best drug trade throughout the world.

PERFUMES OF THE FIRST RANK IN POINT OF POPULARITY.

Lady of the Lake.
White Lilac.
White Rose.
Heliotrope.
Jockey Club.
New Mown Hay.
Lily of the Valley.
Prairie Flower.
Wild Lotus.
Queen of May.
Myrtle Bloom.
Ylang Ylang.
Stephanotis.
Violet.

PERFUMES OF THE THIRD RANK IN POINT OF POPULARITY.

Musk.
Patchouly.
Rose Geranium.
Tea Rose.
Rondeletia.
Night Blooming Cereus.
Ess. Bouquet.
Millefleurs.

 *Illustrated Catalogue*
furnished upon application.

PERFUMES OF THE SECOND RANK IN POINT OF POPULARITY.

Carnation Pink.
Mignonette.
Ocean Spray.
Tuberose.
Jasmin.
Moss Rose.
Pond Lily.
Frangipanni.
Orange Blossom.
Musk Rose.
Trailing Arbutus.
Honey Suckle.
Sweet Briar.
Sweet Pea.
West End.
White Heliotrope.
Wood Violet.

PRICE LIST.

	Per doz.
$\frac{1}{2}$ oz., assorted odours...	8
$\frac{1}{4}$ " " " ...	14
$\frac{1}{8}$ " " " ...	20
$\frac{1}{4}$ " " " ...	32
$\frac{1}{2}$ " " " ...	42
$\frac{3}{4}$ " " " ...	62
1 " " " ...	112
18 " " " ...	216
1 " " " Tourist	16
Small trial size, per gross	23
Large " " "	35

Our Perfumes combine richness of fragrance with delicacy and permanence of odour. They may be handled and retailed either from bulk or in small packages, both in cold and warm climates, without appreciable deterioration of quality. They take the lead and enjoy the preference in all countries wherever introduced.

Hoping to receive your orders, we are,

Yours very respectfully,

C. A. MANN & CO., 43 MURRAY ST., NEW YORK CITY, U.S.A.



FINEST ENGLISH PERFUMERY.

CONCENTRATED PERFUMES, of great fragrance and strength.

TANGLEWOOD,	WHITE ROSE,	CROWN BOUQUET,	} 16/, 20/, 28/, 48/, and 84/ per doz.
OPOPONAX,	MATHIOLA,	WHITE HELIOTROPE,	

EXTRA CONCENTRATED DITTO, CRAB-APPLE BLOSSOMS, 20/, 33/, 48/, and 60/ per doz.

"Under the title of CRAB-APPLE BLOSSOMS, the Crown Perfumery Co., of 177 New Bond Street, are now selling one of the most fragrant and delightful perfumes ever manufactured. The uniform excellence of all the goods which bear upon them the name of this well-known firm scarcely needs further comment here, since our readers are probably already aware of their exceptional merit. At the same time, it is well perhaps to call attention to the fact that this 'Crab-Apple Blossom' scent has all the charm of freshness and distinct novelty. It is totally unlike any of these commonplace perfumes with which we meet in all directions, and it reminds one at once of all the sweet and delightful scents of the country.—*Lady's Pictorial*."

THE CROWN SOAPS, finest quality, richly scented, HONEY, BROWN WINDSOR, &c., &c., 84/ per cwt.

SAPO-LAVANDE, the new Transparent Soap, perfumed with finest Lavender, 48/ per gross.

BEST OLD ENGLISH TRANSPARENT SOAP, unscented, 36/ per gross.

" " " " highly perfumed, 72/ per gross.

"We have chemically examined your Best Unscented Transparent Soap, and we conclude that it contains no cocoanut oil, is quite neutral, and is not inferior to the highest priced soap in the market. We shall recommend it to all our customers.—Yours faithfully, (Signed) CHURCHILL & SOX, Pharmaceutical Chemists, 46 New Street, Birmingham."

PURE COAL TAR SOAP, the finest made, 27/ per gross.

INVIGORATING LAVENDER SALTS, Registered.—The new and popular smelling salts, 16/ and 32/ per dozen.

WHITE CHERRY TOOTH PASTE, 7/ and 10/6 per dozen.

OPALINE FACE POWDER, 3/6, 7/, and 15/ per dozen.

OPALINE CREAM, the great beautifier, so highly recommended by Madame Adelina Patti, 18/ and 24/ per doz.

SIR ERASMUS WILSON'S HAIR WASH, the Best Restorer, 18/ and 30/ per doz.

THE CROWN PERFUMERY COMPANY,

177 NEW BOND STREET, LONDON.

New Illustrated Price List free by post, also Show-cards on receipt of instructions for enclosure—all communications to be addressed to the Manufactory, NEW FAIRFIELD WORKS, 49 OLD BAILEY, LONDON, E.C.



SEVEN PRIZE MEDALS AWARDED.

DATEY & CO

FOR NEARLY FIFTY YEARS AT
37, LOMBARD ST., LONDON.

MANUFACTURING PERFUMERS.

Manufactory—49, SCRUTTON STREET, FINSBURY, E.C.
Bonded Perfume Warehouse—ST. KATHARINE'S DOCKE.
City Depot—19 & 20, WALBROOK, E.C.

COLD CREAM.

LAVENDER WATER.

PERFUMES & POMADES.

VIOLET POWDER.

BROWN WINDSOR.

TOILET SOAPS &

CRESSWELL BROTHERS,

2 & 13^A RED LION SQUARE, LONDON, W.C.



View of Cresswell Brothers' Sponge Sorting and Packing Stores at Ægina, Greece.

(FROM A PHOTOGRAPH.)

The Island of Ægina is the chief centre of the Sponge trade in Greece, and CRESSWELL BROTHERS' premises are the only ones owned by an English firm and devoted to the trade there.

FINE TURKEY & HONEYCOMB SPONGES

CRESSWELL BROTHERS hold the largest and most varied stock extant of these goods. They are the only firm having a permanent staff in the Mediterranean. The advantages that are enjoyed from this special and unique position cannot be exaggerated, as they in this way obtain their supplies direct from the fishermen, thereby saving two profits, and are able, consequently, to offer their goods in better assortments and at lower rates than any other house.

LARGEST STOCK IN THE WORLD.

Write for Illustrated Price List, containing descriptions and quotations for every known kind of Sponge.

CRESSWELL BROTHERS, 2 & 13a Red Lion Square, London, W.C.

To avoid mistakes please address **CRESSWELL BROTHERS** in full.

MAW'S MENTHOL.

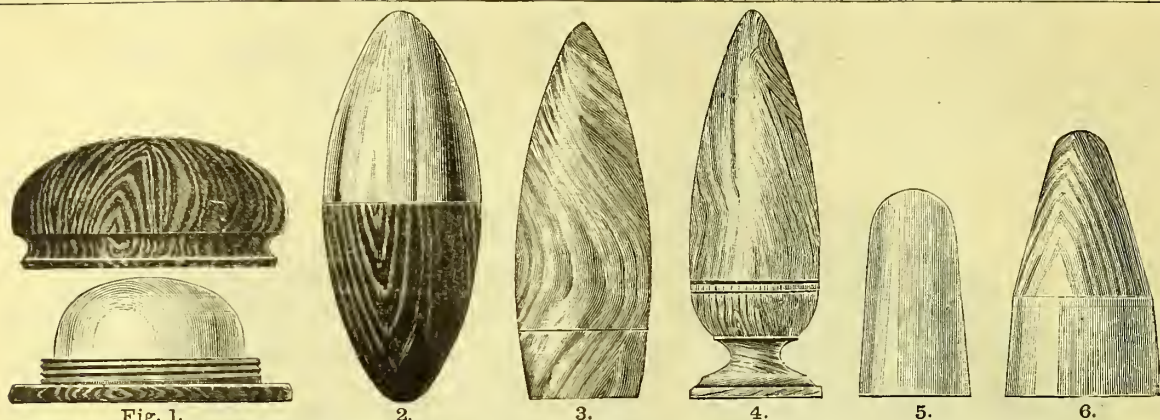


Fig. 1.	MAW'S MENTHOL,	in Ebony Cases, flat for the pocket	...	...	...	Per doz.	6/
	"	in Boxwood Cases	...	...	...	"	4/
	"	in Vegetable Ivory Cases	...	...	...	"	6/
Fig. 2.	MAW'S MENTHOL,	portable, with Screw Metal Caps	...	...	...	"	5/
Fig. 3 & 4.	MAW'S MENTHOL,	in Boxwood Cases	...	...	...	"	2/8 and 4/
	"	in Vegetable Ivory Cases	...	...	...	"	4/ and 6/
Fig. 5.	MAW'S MENTHOL,	in White Opaque Glass Jars with Red Celluloid Caps	...	...	...	"	2/6 and 3/6
	"	in Stopped Bottles	...	...	...	"	4/6 and 6/
Fig. 6.	MAW'S MENTHOL,	on Wood, in Glass Bottles	...	...	...	"	4/

S. MAW, SON & THOMPSON, LONDON.

AYER'S RECAMIER PREPARATIONS FOR THE COMPLEXION.

Positively made from a formula used for forty years by Madame Recamier, the noted beauty of her day, and never before manufactured for sale. Used daily, to the exclusion of all other articles of a like nature, by Mesdames Adelina Patti, Sarah Bernhardt, Lillie Langtry, Mrs. James Brown-Potter, and hundreds of others. For terms to the trade, and for sale at retail, apply to

The AMERICAN EXHIBITION, LONDON, Column B, No. 34.

RECAMIER CREAM—A Curative. RECAMIER BALM—A Beautifier.
RECAMIER POWDER—For Ladies and Infants, and Gentlemen after Shaving.

Home Office—39 & 41 Park Place, New York City, U.S.A.



WALNUT POMADE.

A Triumph as a Hair Restorer.
An immediate effect.

Pleasant and Harmless.

Four Colours—Golden, Light Brown, Dark Brown, and Black.

Pots— $\frac{3}{4}$ oz. (1/6) 12/ per doz.
1 $\frac{1}{2}$ oz. (2/6) 20/ per doz.

DEPILATORY POWDER

FOR REMOVING

SUPERFLUOUS HAIR

Speedily and effectually, without injuring the Skin.

Retail, 1/; Wholesale, 8/ per doz.

AGENTS:—Barclay; Edwards; Maw; and Sanger.

SOLE PROPRIETOR—

EUGENE MORPHY, 70 South Audley St., Mayfair, LONDON.

20

This Unique Preparation has the extraordinary property of keeping the

HAIR IN CURL.

Now used by Ladies in all parts of the World.

Needs but an introduction to command a ready and constant sale.

FRIZZETTA
(REGISTERED.)
RETAIL 1/6

Supplied by all London Pat. Medicine Houses. Handsome Show-cards, Glass Tablets, and Circulars profusely supplied. Foreign and Colonial Chemists should write for Terms, &c.

F. W. BATES, CHEMIST,
BROOKS'S BAR, MANCHESTER.

IMMENSE SUMMER SALE

TO THE TRADE, IN BULK,
1/- lb., 10/- Gallon.

Special Quotations
for large
Buyers.

EXTRACT OF HERBS
Labels provided if necessary.

PREPARED BY
W. GEDDES,
MANUFACTURER OF
Pharmaceutical Preparations,
WERNETH, OLDHAM.

JUBILEE



Presentation



WATCH.

To commemorate Her Majesty's Jubilee we have decided to give, free of all charge, with **all first orders** for **ONE GROSS** (accompanied by cheque for £2 2s.) of the

WORLD - FAMED TOOTHACHE PENCIL,

Invented by J. J. HARVEY, Ph.D., F.S.A. (name, label, and title registered, 15,048),

An **English Watch**, in nickel-plated case, which is a really reliable time-keeper, and one that may be used by any one. This offer to extend for **six weeks** for the Home Trade, and **THREE MONTHS** for the Export Trade. They may be obtained through all Wholesale Houses at same prices and on the same conditions, and each Chemist is entitled to **one Presentation Watch only**. We feel confident that every Chemist who avails himself of this Jubilee offer will be well satisfied with both the Watch and the Pencils, as wherever introduced they meet with a ready sale.

No order will be executed that is not accompanied by Coupon as at side, duly filled in as requested. This also applies to orders sent to the Wholesale Houses, whose name we require filled in.

From *THE CHEMIST AND DRUGGIST.*

JUBILEE PRESENTATION COUPON.

This Coupon entitles the Holder to

1 Gross The World-Famed Toothache Pencils,

Invented by J. J. Harvey, Ph.D., F.S.A.,
AND

1 English Watch in Nickel-plated Case.

Name

Address

Wholesale House

Proprietors: **HOCKIN, WILSON & CO.,**

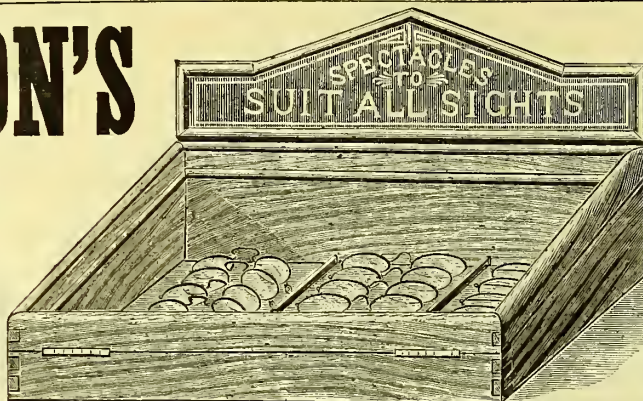
38 DUKE STREET, MANCHESTER SQUARE, LONDON, W.

DARTON'S

SHOW CASES

of

SPECTACLES.



No. 1 Case, price £2 2s.; No. 2, £3 3s.; No. 3, £6 6s.; No. 4, £10 10s.; No. 5, £21.

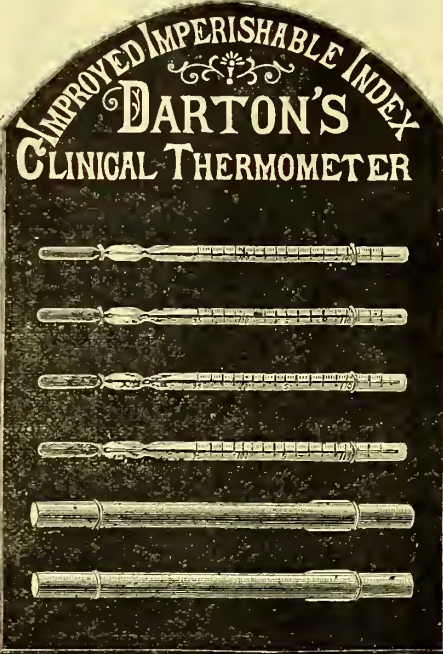
Send for fully Illustrated Catalogue and Descriptive Pamphlet, with Table of Sights, post free on receipt of trade card.

CHEMISTS commencing the Spectacle business will find these Show Cases arranged with an assortment of Spectacles and Folders of all sights, to meet the requirements of purchasers. The quality and quantity may be varied to suit any class of trade at customer's wish. The Spectacle Show Case is of Solid Polished Mahogany, well made and finished, to stand any climate. Large Coloured Show Cards sent with each case, with descriptive pamphlet, &c.

"THE CHEMIST AND DRUGGIST,"

MAY 15, 1886, says:—

"Messrs. F. DARTON & CO., of 45 St. John Street, West Smithfield, who have long made a specialty of supplying Chemists with spectacles and some scientific instruments, and have thus gained considerable experience as to the requirements of beginners in the business, have followed up this experience by fitting up a number of show cases with various stocks, enabling chemists to start in the trade with the minimum of risk and the maximum of facility. The cases are well made, and are quite ornamental, and the spectacles are sold at very moderate wholesale prices, presenting an opportunity for a rate of profit to which chemists are getting unaccustomed."



DARTON'S

IMPROVED

IMPERISHABLE INDEX

CLINICAL

THERMOMETERS.

For the convenience of Chemists who are introducing these Instruments, we are now mounting same on an attractive Showcard, chocolate ground, gilt edges and gold letters, with or without name. Price per doz., including 1 Card, 36/; ditto, lens front, magnifying, 72/. Morocco Pocket Case, containing 1 Bent and 1 Straight Clinical, 9/ the set. Kew Certificates to any of the above 15/ doz. extra.

Special Quotation for Quantities.

Customers' Names and Addresses engraved on our Clinical Thermometers free of charge when ordering not less than 1 doz.

THE "ECLIPSE"

POCKET

MAGNIFYING

GLASS.

1 doz. Magnifying Glasses, in five progressive sizes, mounted on coloured Showcard, 7/ net.



N.B.—The Trade are cautioned against purchasing worthless imitations of F. DARTON & CO.'S Goods.

In ordering through your Agents please state F. DARTON & CO.'S GOODS ONLY REQUIRED.

F. DARTON & CO.,

WHOLESALE OPTICIANS, MAKERS TO HER MAJESTY'S GOVERNMENT,
45 ST. JOHN STREET, WEST SMITHFIELD, LONDON, E.C.
ESTABLISHED 1834. Telegraphic Address—"EXCEPTIONAL LONDON."

Telephone Number,
1852.**Advertisers' & Buyers' Reference List,
AND INDEX TO ADVERTISEMENTS.**TELEGRAPHIC ADDRESS—
**CHEMICS
LONDON.****ADVERTISEMENTS APPEARING IN THIS ISSUE OF "THE CHEMIST AND DRUGGIST."****NOTE.**—The Folios shown in this Index are those at the FOOT of the Page, and NOT at the Top. This arrangement is necessary in order to meet the requirements of the Post Office.

	Foot of page		Foot of page		Foot of page
ALLEN & HANBURY'S	Notice COVER	DENOUL, J.	Medicinal Capsules 42	MARRIOT, E., & CO.	"Lily" Baby Comforter 8
AT MENTHOL CONES (SHIRLEY, A. W.)	51	DE PASS & CO.	Petrolina 42	MASON, G., & CO., LIM.	Essence of Beef, "O.K." Sauce, &c. 13
ANTHONY & FILS	Ink 50	DINWIDDIE & CO.	Fluid Magnesia 42	MAUD, W. R.	Emmel and Worm Cakes 9
APOLLINARIS CO.	Friedrichshall, Hunyadi Janos 16	DUNGAN, FLOCHART & CO.	Chloroform 39	MAWSON, SWAN & WEDDELL	Mawson's New Filters 12
APOLLINARIS CO. (LIM.)	Apollinaris Water COVER	DUNLOP, MITCHELL & CO.	Filters 16	MAY & SON & THOMPSON	Lint and Lozafahs 37
ASSISTANTS WANTED	Coloured Supplement	DUNN & CO.	Acetic Acid 33	SPONGES BAGS 9, Menthol 29	Medicinal Gelatine Capsules 35
ATKINSON, J., & CO.	Zenth Perfumery 49	ECKELL, W. F. W.	Malt Extract 34		
ATKINSON & BARKER	Infants' Preservative 35	EDGELL BROS.	Rectified Pure Spirit 50		
AYER, H. H.	Recomier Cream and Powder 20	EISNER & MENDELSON	Chemicals and Patent Medicines 44		
AYRTON & SAUNDERS		ELLIAMAN, SONS & CO.	Embrocation TEXT 774		
		ELVIN BROS.	Fluid Sleep Dip 50		
BAILEY, W. H., & SON	English-made Willow Bases 49, 50	EVANS, SONS & CO.	Red Bark Bitters 42, Insect Powder 49		
BARCLAY & SONS	Dr. Oildmann's Purgative 26	EVANS, LESCHER & WEBB	London 42, 49		
	Sir James Murray's Fluid Magnesia 74	EVANS, SONS & MASON, Montreal	42, 49		
BARKER, W., & SON	Engravers' TEXT 774	EWEN, J., & SONS	Clarified Lard & Toilet Soaps 53		
BARRETT, R. H.	The Heart Scent Bottle 6	EXCHANGE COLUMN	Special Supplement		
BATES, F. W.	Eriscetta "Hair in Curl 1	FABIAN, J. M.	Eau de Cologne 48		
BAUMGARTNER & CO.	La Brillante 50	FELTONE & SONS	Lime Juice 50		
BAYLEY & CO.	Hæmorrhoids or Piles 41	FINCH, RICKMAN & CO.	Mustard 13		
BEECHAM, T.	Beecham's Pills 35	FLETCHER, FLETCHER & STEVENSON			
BEEZLER & CO.		FORD, SHAPLAND & CO.	Persina Port and Essential Oil Almonds 23		
BLOOD MIXTURE and Annett's Cough Balsam 4, 5		FOSTER, F.	Printing 11		
BREWLEY & DRAFER, LIM.	Int (Dichroic) 23	FOUGERA, E., & CO.	Importers and Agents 44		
BINGHAMPTON OIL REFINING CO.	Petrolina 49	FOULKE, W. J.	Foulke's Cement 45		
BIRLEY, DR. Agents Wanted Coloured Supplement		FRY & SONS	Cocoa 15		
BOURNE, JOHNSON & CO.		GASKELL, DEACON, & CO.	Bicarbonate of Soda 31		
		GEDDES, W.	Extract of Herbs 20		
BOWDLEAR, W. H., & CO.	Bathing Caps, Washing Gloves, &c. 8	GIBSON, R.	Lozenges, Sugar, &c. 49		
BRACHER & CO.	Bottles 53	GILLOTT, JOSEPH	Steel Pens 11		
BRADLEY & BOURDAS	Mixer 44	GOODALL, H. A., & CO.	"Jubilee" Nail Brush 46		
BRAND & CO.	Specialities for Invalids 14	GRINDLEY & CO.	Petroleum Jelly 53		
BRATBY & HINCHLIFFE	Soda Water Machinery 16	HASSALL & CO.	Phospho-Citric Acid 15		
BRITISH COLLEGE OF HEALTH		HAYNES, G., & CO.	Abortifacient 26		
	Morrison's Pills 30	HAY, W.	Soluble Essence, Hop Ale Essence 15		
BROMLEY & CO.	Woodall Spa...TEXT 774	HERTZ & COLLINGWOOD	Jewen's Cod Liver Oil 39		
BROOKS, T.	Formule 10	HEWLETT, C. J., & SON	Mist, Peppermint B. C. Bismutho 34		
BULLEY, W. H.	Chlorodyne 50	HOCKIN, WILSON & CO.	Jubilee Presentation 21		
BURGESS, WILLOWS & FRANCIS	Wholesale Druggists 33	HUNYADI JANOS	Caution 16		
BURGOYNE, BURBIDGES & CO.		INGRAM & ROYLE	Natural Karlbad Sprudel Salt COVER		
BURROUGHS, WELLCOME & CO.	New Preparations 32	INGRAM & SON	Enemas 32		
	Problem of Infants' Feeding, "The Practicoec of Pharmacy" 27, 23	ISAACS & CO.	Bottles 6		
BUSINESSSES FOR DISPOSAL	Special Supp.	JAMIESON & CO.	Harness Composition 53		
CADBURY BROS.	Cocoa Essence COVER	JEWELL & BROWN	Sparkling Table Waters 14		
CAPPER, W.	Crindone 10	JOHNSON, J. H., & S.	Oil of Mustard Seed 53		
CARDIGAN POLISH REVIVER	51	JONES & CO.	Methylated Spirits 53		
CHESEBROUGH MANUFACTURING CO.	Caution 23	KEENE & ASHWELL	Camphor Pills 54		
CLARKE, S.	Queen's Burmese Ware and Fairy Lamps and Lights 47	KEMP, W., & SON	Beehive and Honey 49		
COLEMAN & CO.	Lebig's Extract of Meat and Malt Wine 13	KERNICK & SON	Wholesale Druggists 50		
COLTHURST & HARDING	Oils, Paints, Varnishes 50	KILNER BROS.	Bottles 6		
CONDY & MITCHELL (LIM.)	Condy's Powder TEXT 774	KUHN, B.	Painful Finkler 41		
CRESSWELL BROTHERS	Fine Turkey and Honeycomb Sponges 19	LEATH & ROSS	Homeopathic Medicines 3		
CRITCHLEY, T.	Starch Glo 50	LIVERPOOL LINT CO.	Cotton Woods, Lints, &c. 26		
CROUCH, J. B.	Damiana Wafers 42	LIVERPOOL SCHOOL OF PHARMACY	10		
CROWN PERFUMERY CO.	Finest English Perfumery 18	LONDON HOMOPATHIC HOSPITAL AND MEDICAL SCHOOL	10		
DARTON, F., & CO.	Imperishable Clinical Thermometers and Eclipse Pocket Glasses 22	LONGMANS, GREEN & CO.	Text Book of Organic Materia Medica 10		
DAYENPORT, J. T.	Chlorodyne 43	LYNCH & CO.	Symes' Thibet Musk COVER		
DAY & SONS	Home and Cattle Medicines 45	MCKESSON & ROBBINS	Ovoid Capsuled Pills 36		
DAY, SON & HEWITT	Cattle Medicine Chests 44	MANCHESTER COLLEGE OF PHARMACY	10		
		MANN, C. A., & CO.	Perfumery 17		
		MARKS, A. A.	Artificial Legs and Arms 6		

CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear above are published in one of the other issues of this month.

**AERATED AND
MINERAL WTS**

Æsculap
Apollinaris (Hunyadi, Fried-
richshall, and Apollinaris)
Barnett and Foster
Bromley and Co. (Woodhead
Spa)
Carter, H. W., & Co. (Ginger
Ale Essence)
Chemists' Aerated Waters
Association
Durrant, Geo. & Co.
Ellis (Ruthin)
Hassall and Co. (Citric Acid,
Phospho)
Hay, W. (Hop Ale Essence)
Hunyadi Janos
Ingram and Royle (Mineral
and Vichy, Sauerbrunnen,
Carlsbad)
Jewsbury and Brown
Kinnond and Co.
Meadowcroft, W.
Mills and Co. (Bourne)
Tannan Spring Natural Mineral
Water Co.
Taylor, T. and F. J.
Williamson, W. H. (Wnter Drunk)
[See GINGER ALE.]

DITTO PLANT

[See SYPHONS AND ESSENCES.]

Barnett and Foster
Bratby and Hinchcliffe
Bush, W. J., and Co. (Foam
Producer, &c.)
Dunford, M.
Evers, H. H.
Guert Frères
Meadowcroft, W.
Tyler, Hayward, and Co.

ACETIC ACID

Dunn and Co.
Hirst, Brooke and Hirst
Morris and Callard (Salts)

ALKALOIDS

Howards and Sons (Cinchona)
Smith, T. and H.

AMMONIA

May and Baker

ANALYSIS

Rait, G. L., F. C. S., &c.

AGENCIES**ABROAD**

Cocking (Japan)
Drysdale, J. W., and Co.
Eisner and Mendelson (Phila-
delphia)
Evans, Sons and Mason
(Canada)
Felton (Melbourne)
Fougera (New York)
Hormusjee Ruttonjee (Bombay)
Kempthorne (New Zealand)
MacNaughtan (New York)
Prosser, E., and Co. (Sany)
Roberts (Paris, &c.)
Rocke (Melbourne)
Sharland & Co. (Auckland N.Z.)
Stallman and Fulton
Symes and Co. (Sims)
Williams, J. P., and Bros.

APPARATUS

Bracher & Co. (Automatic
distilling)
Maud, W. R.
May, Roberts (Water-bath)
Orme (Scientific)

Perken, Son and Rayment
(Scientific)
Rothermel, Paul (Vinegar)
Wolters, Otto (Balances)

BATH GLOVES

G. Pattinson
Sherlock Bros.

BEESEW & HONEY

Bowdlear and Co.
Kemp, W., and Son
Woolley, Sons and Co.

ICARB. SODA

Gaskell, Deacon and Co.
Howards & Sons
May and Baker

BISMUTH PREP.

Hewlett and Sons
Howards and Sons
May and Baker
Sellers, J.

BOOKS

Lewis, H. K.
Southall Bros. & Barclay

BLACKING

New Military Blacking Con-
pany
Jamieson and Co.

BOTANIC BEER

Newball and Mason

BOTTLE CAPS

Hunt, W. F., and Co.

BOTTLES

Aire and Calder Bottle Co.
Barrett, R. H.
Barnett and Foster
Bratby and Hinchcliffe
Brett's (Lim.)
Brooks, Peel (Perfumers)
Glasgow & Apothecaries' Co.
Hearn, E. A., and Co.
Isaacs and Co.
Kilner Bros.
Lang, Jonas and Jules
Lynch and Co. ("L" Brand)
Morrison, R., and Co.
Pothe
Thompson, Millard and Co.
(Feeding)
Toozoo
Whitehead and Co.

BOXES

Austin and Co. (Cardboard)
Ayrton and Saunders (Willow)
Irvin and Sellers
Robinson and Sons (Pill and Insect Powder)

BROMIDIA

Battle and Co.

BRUSHES

Dukas and Co.
Goodall, H. A., and Co.
("Stand")
Sherlock Bros.

BUTTER COLOUR, &c.

Bush, W., and Son (Margarine)
Tomlinson and Hayward

CAMPBOR

Howards and Sons
Keene and Ashwell (Homoeopathic)
May and Baker
Murray, Sir James (Fluid)

CAPSULES

Betts and Co. (Metallic)
Denonai, J. (Medicinal)
Duncan, Flockhart and Co. (Cascara Sagrada)
Hooper, B., and Co.
Maw, Son and Thompson
Melin, C. (Capsuling Machine)

CARMINE

Bush, W. J., and Co.
Sellers

CASTOR OIL

Allen and Hanbury's

CATALOGUE

Evans, Sons and Co. (Price Current)
Maw, S., Son and Thompson (Price Current)
Johnson and Johnson
Newbery and Sons

CEMENT

Fonlkes
Wilson, Walker and Co.
Winklemann and Co. (Liquid Glue)

CHALK PRECIP.

Dunn and Co.
Levermore, Aug. and Co.

CHEMICALS

Bernstein Vogt (Fine)
Bramwell, E., and Son
Bush, W., and Co.
Dunn and Co.
Fletcher, Fletcher & Stevenson
Gaskell, Deacon and Co. (Bicarbonate of Soda)
Howards and Sons (Pharmaceutical)
May and Baker
Morris, Callard, and Co.
Petri Bros.
Sumner, R., and Co.
Smith, T. and H., and Co.
Tytkie and King
Walker, Troke and Co.
Wink, J. A., and Co. (Fine)
Zimmermann, A. and M.

CHLORATE OF POTASH

(Compressed Tablets)
Burroughs, Wellcome and Co.
Leo's
Hooper, B., and Co.

CHLORODYNE

Blyton-Bage and Co. (Twemlow's)
Davenport (Browne's)
Towle, A. T.

CHLOROFORM, &c.

Duncan, Flockhart
Macfarlan, J. F.
Petri Bros.
Smith, T. and H.
Wink, J. A., and Co., Ltd.
Zimmermann

CITRIC ACID

Hassalls (Phospho)

COCAINE

Howards and Sons

COCOA & CHOCOLATE

Cadbury
Fry (Malted)
Savory and Moore (Cocoa and Milk)

COD-LIVER OIL

Allen and Hanbury's
Burroughs, Wellcome
Burgoyne (Peptideine)
Hertz & Collingwood (Jensen's)
Jorden Cod Liver Oil Co.
Smith, T. J.
Southall Bros. and Barclay
Woolley, Sons and Co.

COFFEE

Symington and Co. (Coffee Essence)
Sherwin (Checker)
The Eclipse Patent Check Till Co.

COIN TILLS

Sherwin (Checker)
The Eclipse Patent Check Till Co.

COLLAPSIBLE**TUBES**

Brooks, H., Peel and Co.

COMBS

Goodall, H. A., and Co.
Sherlock Bros.

COMPRESSED MEDICINES

Allen and Hanbury's
Burroughs, Wellcome and Co.
Hooper, B., and Co.
Newbery and Sons

CORN CURES

Robinson, B.
Young's

COTTON WOOL

Haynes G., and Co.
Robinson and Sons (Absorbent)
Sanger, J., and Sons

DENTIFRICES

Jewshury and Brown
Newbery and Sons
Sutton, O., and Co.
Thompson and Capper
Woods, W. (Arecia Nut)

DENTISTRY

Jones, Dr. C. H. (Mechanical)

DISINFECTANTS

Condy and Mitchell
Government Sanitary Co.
Hamilton and Co.
National Chemical Co.
Sanitas
Steele & Co. (Chloride of Lime)

DOG MEDICINES

Spratts (Patent)

DRUGGISTS' SUN.

Ayrton and Saunders
Barclay and Sons
Bourne, Johnson and Latimer
Evans, Lescher and Webb
(Hawley's Counter Adjuncts)
Evans, Sons (Savars)
Lynch and Co.
Marriott and Co. ("Lily"
Baby Comforter)
Maud, W. R.
Maw, S., Son and Thompson
May, Roberts and Co.
Newbery, F., and Sons
Pattison, Geo.
Sanger and Sons
Savory and Co.
Scherlock Bros.
Thompson, Millard and Co.
Toogood, W.

DRUMS, CANS, &c.

Noakes and Co.

DUBBIN

Dales, J. T.
Jamieson and Co.
New Military Blacking Co.

DYES

Ayrton and Saunders

EAU DE COLOGNE

Farina, J. M. (Gegenüber)
Mason, H. C. (Nun)

EFFERVESCENT**SALINE**

Allen and Hanbury's

ELECTRIC APPAR.

Darton, F., and Co.
Orme and Co.
Colthurst & Harding (Electric Light Oil)

EMBROCATION

Elliman, Sons and Co.

ENEMAS

Ingram and Son
Lynch and Co.
Sanger and Son

ENGRAVERS

Barker, W., and Son

ESSENCES, FRUIT**AND SOLUBLE**

Bratby and Hinchliffe
Burgoyne, Burbridge and Co.
Bush, W. J., and Co.
Carter, H. W., and Co.
Hay's Soluble Lemon, &c.
May and Baker
Meadowcroft, W.
Stevenson and Howell
Tytkie and King
Vogt, G.
Woolley, Sons and Co.

ESSENTIAL OILS

Bernstein and Vogt
Bush, W. J. (Lemons, &c.)
Cocking (Japan Peppermint)
Hay, W.
May and Baker
Meadowcroft, W.
Rocke, Tompsett (Eucalyptus)
Sumner and Co.
Stallman and Fulton
Stevenson and Howell
Symes (Oil Lavander)
Vogt, G.
Warrick Brothers
Wright, Layman and Umney

ETHER

Duncan, Flockhart and Co.
(Chloric)
Howards and Son
May and Baker
Robbins

EXTRACT, MEAT

Brand and Co.
Burgoyne, Burbridge and Co.
(Dr. Koch's)
Coleman & Co.
Liebig
Mason, Geo., and Co. (Lim.)
Pothe (Leube Rosenthal)

EXTRACTS, FLUID

Barber, G., and Co.
Burgoyne, Burbridge
Evans, Sons & Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire and Francis
Potter and Clarke

FACE POWDERS

Chubb, J., and Co (Violet)
Foulkes

FEEDING BOTTLS.

Bourne, Johnson and Latimer
Hearn, E. A., and Co. late
Hearn, Riddell and Co.

Kilner Bros.
Lang, J. and J.
Maw, Son and Thompson
May Roberts and Co.
Savars

Thompson, Millard
Toogood, W.

FILTERING

Doulton and Co.
Dunlop, Mitchell and Co.
Maignen (Filtre Rapide)

Slack and Swan, and Weddell
Mawson Brownlow
Silicated Crin. Filtr. Co.

FLY PAPERS

Ford, Shapland and Co.

FOAM PRODUCERS

Bush, W. J. and Co.

FOOD (Infants & Invalids)

Allen and Hanbury's
Benger's Pancreatised
Burroughs, Wellcome (Peptonising)

Goodall, Backhouse and Co.
Hearon, Squire and Co.
International Patents Association
(Dr. Mell's Health Biscuits)

Lazenby, E., and Son
Mason, Geo., and Co. (Lim.)
Nestle, H.

Savory and Moore
Southall Bros. and Barclay
Sumner, R., and Co. (Angels)
Van Abbott (Diabetic)

FORMULAE

Brooks, T.

FULLER'S EARTH

Chubb, J., and Co.

GINGER ALE

Harston and Co.
Hay, W.
Meadowcroft, W. (Essence of)
Mills, R. M.
Sumner, R., and Co. (Essnes)

GLYCERINE

Fink
Martindale, W. (Nitro-Glycerine Tablets)
Price's Candle Co.

GRANULAR PREP.

Bates and Co.
Bishop, A.
Bush, W., and Co.
Evans, Sons
Wright, Layman and Umney

GUMS

Fink (Arabic, &c.)

GUTTAPERCHA

Duncan, Flockhart
Stevens, P. A. (White)

HEMORRHOIDS**OR FILES**

Bayley and Co.

HAIR PREP.

Ayer, H. H. (Recamier)
Bates, T. W. (Frizzetta)
Capper, W. B. (Crimdione)
Cheesbrough Manfr. Co.
French Hygienic Co.
Morphy, E. (Walnut Pomade)
Towle Toilet Cream (Thurston's)

HARNESSE COMPO.

Jamieson and Co.
New Military Blacking Co.

HERBALISTS

Butler, McCulloch and Co.
Depponizer, Henri
Geddes, W. (Extract of Herbs)
Newball & Mason (Ext. of Herbs)
Peck and Velsor
Potter and Clarke

HOMOEOPATHIC

Gould, E., and Son
Gruner, Carl (German)
Keene and Ashwell
Leath and Ross
Thompson and Capper

HOP ALE

Hay, W.

HOSPITALS

London Homoeopathic

HYPOPHOSPHITES

Dunn and Co.
Fellows
Fletcher, Fletcher & Stevenson
Tytkie and King
Yestman, F. J.

INHALERS

Burroughs, Wellcome and Co.
Evans, Sons and Co.
Maw, S., Son and Thompson
Spiron, The, Co., Lim.
Toogood, W.

INK [See MARKING.]

Antoine
Bewley and Draper
Duncan, Flockhart

INSECTICIDES

Ford, Shapland and Co.
Sandford
Steiner and Co.
Sumner, R., and Co.
Vogt, G. (Dalmatian)

KETCHUP

Tyrer, P.

LANOLINE

Burroughs, Wellcome and Co.

LARD

Ewen, J.

LEECHES

Fitch and Nottinghamham
Potter and Clarke

LICORICE

Maud (Compound)

LIME JUICE

Felton and Sons (Specialité)
Monterrat (see Evans)

LINSEED

Kemp, W., and Sons (Crushed)

LINT

Liverpool Lint Co.
Maw, Son and Co. (Taylor's)
Newsome (Surgeons)
Robinson and Sons
Seahy and Johnson
Westhorp's (Marine)

LOOFABS.

May, Roberts and Co.
Maw, S., Son and Thompson

LOZENGES

Allen and Hanbury's
Blyton, Bage & Co. (Medicated)
Craven, M. A., and Son
Gibson, R. (Manufacturer)
Lynch and Co.
Martindale, W. (Nitro-Glycerine Tablets)

Mason, Geo., and Co. (Meat)
Randall and Son
Warrick Brothers

MACHINERY

Bracher and Co.
Carter, J. H.
Melin, C. (Capsuling)
Sherwin
Werner and Pfeiderer

MAGNESIA

Bishop, A.
Dinneford (Fluid)
Henry, T. and H. (Calcined)
Murray, Sir James (Fluid)

MALT EXT., ETC.

Allen and Hanbury's
Burroughs, Wellcome and Co.
(Malt Extract "Kepler")
Dydale and Co. (Dry)
Pothe (Dr. Linck's)

MARKING INKS

Barber, G., and Co. (Crimson)
Christian, J.
Hooper, W., and Co.
Murphy, J.

MEDICINE CHSTS

Day, Son and Hewitt (Veterin.)
Day and Sons

MENTHOL

A. J. Menthol Depot, J. G.
Shirley, Proprietor
Banner, E. R.
Boehm, J. (Charms)
Christy, J. & Co. (Unhaler)
Cooking and Co.
Hockin, Wilkin and Co.
Maw, Son and Thompson
Newbery and Son
Shirley
Spies Bros.
Symes and Co.
Todd, A. M. (Crystal Oil of Peppermint)
Wand, S.

MERCURIALS

Bush, W., and Co.
Howards and Sons
May and Baker

METHYLATED**SPIRITS**

Burroughs, J.
Gibb, Smith and Co.
Harvey, J. & W., and Co.
Macanair, J. & D.
Phillips, G., and Co.
Warren, A., and J.

METHYLENE

Robbins, J., and Co.

MICROSCOPES

Darton, F., and Co.
Perken, Son and Rayment

MIXING**MACHINERY**

Bracher and Co.
Carter, J. H.
Sherwin, G. E.
Werner and Pfeiderer

MORPHIA

Macfarlan H. and Co.
Smith, T. and H.
Wink, J. A., and Co.

MURICIDANE

Stone and Son

MUSE

Symes and Co. (Thihet)

MUSTARD

Finch, Rickman
Johnson, J. H. and S. (Ess. Oil)

NIGHT LIGHTS,**FAIRY LAMPS, &c.**

Clarke, S.

OILS, PAINTS, &c.

Birmingham Oil Refining Co.
Colthurst and Harding
Depouzier, Henri
Elvin Bros.
Seadon, J. and T.

OINTMENT BASES

Birmingham Oil Refining Co.
Burroughs, Wellcome & Co.
(Lanoline)
Cheesbrough (Vaseline)
De Pass, E. A., & Co. (Petrolina)
Grindley (Petroleum Jelly)
Metcalfe, Theo., & Co.

PAINTS [See OILS.]**PAPAIN FINKLER**

Kuhn, B.

PARALDEHYDE

Zimmermann, A. and M.

PATENT AGENTS

Horn and Son
Trade Mark Protection Society
(E. Johnson)

PATENT MEDCNS

Atkinson (Infant Tescery)
Barclay and Sons (General)
Beck, A. N. (Beck's Hop Bitters)
Beecham (Pills)
Beedler, J., and Co. (Blood Mixture)
and Annette's
Conch and Liscum
Bennette (Manna Cake)
British College (Morrison's)
Burgess, E. (Lion Ointment)
Crouch, F. B. (Wafers)
Edwards and Son
Evans, Lescher (Hawley's
Counter Adjuncts, Coated
Pills, &c.)
Fenning's (Powders)
George and Welch (Liver)
Hirst, Brooke, and Hirst
Holloway (Pills and Oint.)
Hop Bitters Co.
Horsford (Acid Phosphate)
Johnson's Soothing Syrup
(Barclay)
Lalor (Phosphodyne, &c.)
Lincoln (Clarke's Mix.)
Lowe, C. (Liver Mixture)
Lynch and Co.
Maud, W. and R. (Worm
Cakes)
May, Roberts and Co.
Munday, J. (Injection Day)
Newbery and Sons
Pocock and Co. (Foreign)
Raines (Composition Ess.)
Richards, J. M. (American, &c.)
Roberts (Foreign)
Sanger (Widow Welch, &c.)
Savars
St. Dalmass (Bronchial, &c.)
Sumner R., and Co. (Angels
Food)
Swift Specific Co., The
Thompson, Millard and Co.
Towle, E. (Penny Royal)

PERFUMERY,**FANCY SOAPS.**

(See EAU DE COLOGNE.)

Atkinson, J., and Co.
Ayer, H. H.
Barclay and Sons
Bayley and Co.
Boehm Gustav (Variations)
Cheesbrough Manufacturing Co.
Crown Perfumery Co.
De Pass and Co. (Beach
Blossom)
Durrant, Geo.
Ewen (Soaps)
Hirst, Brooke and Hirst
Mann, C. A., and Co.
Maw, Son and Thompson
Newbery and Sons
Osborne, Bauer and Cheeseman
Patey and Co.
Rowland and Son (Various)
Sainsbury, S. (Lav. Water)
Sanger and Sons
Warrick Brothers
West, T. (Okeil's Mosa)
Woolley Sons & Co. (Powder)
Wright, W. V., and Co. (Soap
Coal Tar)

PENS

Gillott

PENKINS, & Co.

Burroughs, Wellcome
Fletcher, Fletcher and Steven-
son
Green, C. and Co.
Keene and Ashwell
Newbery (Ingluvin)
Savory and Moore (Peptonised
Milk)
Warner and Co. (Ingluvin)
Zimmermann

PEROX. OF HYDR.Dunn and Co.
Robbins**PHARM. PREPS.**

Allen and Hanbury
Barron, Squire and Co.
Battle and Co. (Bromidia)
Blyton, Bage, and Co.
Burgess, Willows, Francis
Burgoyne, Burbridges
Burroughs, Wellcome (Various)
Duncan, F. W. Knart
Evans, Sons and Co.
Fellows (Hypophosphites)
Fletcher (Liquors for Syrups)
Hearon, Squire and Francis
Hewlett and Sons
Hirst, Brooke and Hirst
Hooper, B., and Co.
Howards and Sons
Keith (Conc. Tinctures)
Martindale (Nitroglycerine)
Sellers, J.
Southall Bros.
Sumner, R., and Co.
Syms and Co.
Wink, J. A., and Co.
Woolley, Sons
Wyleys (Various)

PHOTOGRAPHICMay and Baker
Perken, Son and Rayment**PILL MACHINES**

McFerran, J. A.
Pindar, J. W.
Robertson, J., and Co. (Coating)

PILLS (Coated, &c.)

Allen and Hanbury (Schief-
feline)
Beecham, Thomas
Hooper, Dr.
McKesson and Robbins (Ovoid-
capsuled)
Morrison and Co.
Newbery and Sons
Sanger, J. and Sons
Smith, W. F.
Towle (for Females)
Warner, W. R. (Coated)
Wyleys and Co.

PITCH

Peace, J. R., and Co.

PLASTERS

Johnson & Johnson
Mather, W.
St. Dalmas, A. De
Seabury and Johnson
Smith, W. F.

PODOPHYLLIN, &c.Keith, B. and Co.
Smith, T. and H.**POLISHING**

Baumgartner (Le Brillantine)
Bradley, Bourdas (Albatur)
Cardigan Reviver
Jamieson and Co.
New Military Blacking Co.
Lim. (Metal)
Oakley, John, and Sons

PORCELAIN GDS

Lynch (Lock-lid Covered Pots)
Maw, Son and Thompson
Potts, H., and Co.
Toogood (E.C. Pots, regist.)

PRINTING

Bowers Bros.
Ford, Shapland and Co.
Kinross and Black
Shverlock, H.
Townsend, J. (Exeter)

PYROGALLIC ACID.

Bernstein & Vort

QUININE SALTS

Drysdale, J. W., and Co.
Howards and Sons
Zimmermann

REFINED WOOL**FAT**

Warren, A. & J.

RENNET

Benger's (Essence of)

SALICINE

Macfarlan and Co.
Smith, T. and H., and Co.

SAUCES, PICKLES

Lazenby (Harvey's)
Tyler, P.

SCHOOLS OF**PHARMACY, &c.**

Edinburgh Classes
Liverpool School
London Homeopathic
Manchester College
South London School
The School of Pharmacy
Tully, J.
Westminster College

SEALING WAX

Waterston and Sons

SEA SALT

Warren, A. and J. (Stoddart's)

SEIDLITZ POWDERS.

Chubb, J., and Co.

SELTZOGENES

Durafort
May, Roberts and Co.

SHAVING

Hovenden (Euxesis)
Lloyd, A. S. (Euxesis)

SHEEP DIP

Elvin Bros.
Grindley and Co.

SHOP FITTERS

Bygrave, J. and W.
Howlett, S.
Maw, Son and Thompson
Natali, E. (Show Cases)
Steian, T., and Co.
Yates, W. S.

SOAP (SOFT, &c.)

Chiswick Soap Co.

SPECTACLES

Darton, F., and Co.
Perken, Son and Rayment
Raphael and Co.

SPIRIT

Burroughs (Pure & Methyl.)
Edgell, Bros. (Pure)
Gibbs, Smith and Co.
Harvey, J. W., and Co.
Jones and Mason (Methyl.)
Macnair, J. & D.
Phillips and Co.
Warren, A. & J.

SPONGE

Cresswell Bros.
Cresswell, R., and Co.
Evans, Sons and Co.
Maw, Son and Thompson
(Sponge Bags)
Peterson, M.
Schutze and Co.
Sherlock Bros. (Sponge Bags)

STAMPS

Pollard, A. W.

STOPPERS

Anstin and Co. (Sprinklers)
Barnett & Foster (The Eclipse)
Brooks, Peel (Sprinklers)
Lazenby, E., and Son (Barrett's
Patent)

STOVES

Clarke, S., and Co. (Gas Heating)

STARCH

Critchley (Gloss)

STROPHANTHUS

Burroughs, Wellcome and Co.

SUGAR

Gibson, R.

SURGICAL

Cocking, J. T. (Splints, &c.)
Ingram and Son
Marks, A. A. (Artificial Limbs)
Maw, Son and Thompson
Powell and Barstow (Elastic
Gum)
Schutze and Co.
Stephenson and Travis
Thompson, Millard and Co.
Woolley, Sons, and Co.

SYPHONS

Barnett and Foster
British Syphon Co.
Durafort
Lang, J. and J.

SYRUPS

Fletcher, Fletcher (Liquors)

TEA

Brooks, Bond and Co.
Pearse and Wheatley
Spinner and Co.
Walker and Dalrymple

THERMOMETERS

Darton, F., and Co.
Goodall, H. A., and Co.
Perken, Son and Rayment
Schutze, F., and Co.

TIN CANISTERS

Noakes, B., and Co.

TIN FOIL

Betts and Co.

TINCTURE PRESS.

Pindar, J. W.

TRADE MARKS

Horn and Son
Trade Mark Protection Socy.

TRUSSES

Bailey, W. H., and Son
Colwell, H. M.
Haywood, J. H.
Lynch and Co.
Schutze and Co.

URETHANE

Howards, Sons and Co.

VACCINE LYMPH

Association for the supply

VARNISHColthurst and Harding
Seddon, J., and T.**VALUERS AND****TENSFR. AGENTS**

Foster, F.
Orridge and Co.

VERMIN KILLERS

Battle, J. R.
Keating, Thomas
Sanford and Son
Steiner and Co.
Stone and Son

VETERINARY

Cheesebrough (Vaseline, &c.
Corner, R. (Devonshire Oils)
W. Cooper and Nephews
Day and Son
Day, Son and Hewitt
James, Lieut.
James, R. J. (Blister)
Spratts (Dogs)
Sutton, F., and Co.
("Drenches")
Walker, Troke and Co.

VINEGAR

Roethermal (Making)

WHOLESALE & RETAIL**DRUGGISTS**

Allen and Hanbury
Barron, Squire and Co.
Burgess, Willows
Burgoyne, Burbridges
Bush, W., Son and Co.
Butler, McCulloch and Co.
Evans, Leacher and Webb
Evans, Sons and Co.
Evans, Sons and Mason
Hearon, Squire and Francis
Hewlett and Son
Hirst, Brooke and Hirst
Pearson, C. F., and
(Foreign)
Pocock & Co. (Foreign)
Potter and Clarke (American
&c.)
Southall Bros. and Barclay
Sumner, R., and Co.
Thompson, Millard and Co.
Walker, Troke and Co.
Woolley, Jas., Sons and Co.
Wright, Layman and Umney
Wyleys and Co.

WINES AND SPIRITS

Coleman and Co. [Wine]
Durrant, G. (Orange)
Hirst, Brooke and Hirst
Ingram and Royle (Orange)
Phillips, G., and Co. (Pure
Spirits of Wine)
Robinson, B. (Orange)

NEWBERY'S OVAL PEDESTAL PILL VASES

REGISTERED PATTERNS.

PRICES MATERIALLY REDUCED.

SEE NEWBERY'S

1887 CATALOGUE.



Label Design Registered under Trade Marks Act.

Vases supplied with Pills only.

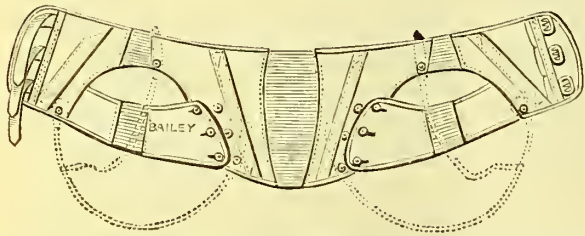
THE REASON WHY



BAILEY'S PATENT ABDOMINAL BELTS

BY ROYAL
LETTERS PATENT.

Have a **LARGE HOME, FOREIGN, AND COLONIAL SALE** is because they are the only Belts which do not result in disappointment. The difficulty of obtaining a proper fit, except at the hands of an experienced fitter, is well known. These Belts, however, are "**SELF-ADJUSTING**," "**CANNOT RUCK UP**," and adapt themselves so thoroughly that **A MISFIT IS IMPOSSIBLE**.—*Vide* "LANCET," "BRITISH MEDICAL JOURNAL," &c.



For Measurement: Circumference of Abdomen at the largest part and Hips.

No. 1.—FOR GENERAL SUPPORT (as fig.)

No. 2.—FOR PREGNANCY.

Capable of great expansion.

No. 3.—FOR PROLAPSUS UTERI.

With Improved Indiarubber Perineal Pad and Regulating Straps

No. 4.—FOR UMBILICAL HERNIA.

With Air Pad.

No. 5.—GENT'S RIDING BELT.

(Nos. 2 to 5 ARE MADE IN FOUR QUALITIES, AT PRICES TO SUIT ALL CLASSES).

THE DISCOUNTS TO SHIPPERS AND THE TRADE ARE THE BEST.

Full particulars post free to all parts of the World. Correspondence invited.

W. H. BAILEY & SON, 38 OXFORD ST., LONDON, W.

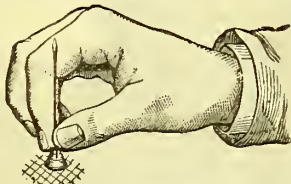
Telegrams—
"LINT LIVERPOOL."

THE
LIVERPOOL PATENT LINT CO.,
MARK ST. MILLS,
NETHERFIELD ROAD NORTH,
LIVERPOOL.

LINT. MANUFACTURERS OF
FLAX, & COTTON,
LINTS,
ABSORBENT, AND CARDED
COTTON WOOLS,
ABSORBENT, OPEN WHITE, and GREY,
BANDAGES,
SURGEON'S, AND CARBOLIZED
TOW.



Trade Mark.



Registered.

THE
ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH,
12 PALL MALL EAST, LONDON, S.W.
SOLE AGENTS FOR DR. WARLDMONT'S CALF VACCINE.

Tubes, 2s. each; Half Tubes, 1s. each. Pomade in vials, 5s.
HUMAN VACCINE, from healthy children only, microscopically examined and source quoted. Three Tubes, two-thirds full, 5s.; Tubes one-third full and Lancelt-charged Points, 1s. each; Pin-points, 1s. 1d. each. Eighteen Charged Small Points, 5s. Tubes two-thirds full (same as those mentioned above, but without source), in quantities for export, £5 per 100 Tubes. Pin-points unchanged, 1s. per dozen. Vaccinations daily, between the hours of 12 and 2, by the Consulting Physician, at the uniform fee of a guinea. P.O.O.'s (including postage, and crossed London and Westminster Bank), with orders, payable to
EDWARD DARKE, Secretary.

Office hours, 10 to 4; Saturdays 10 to 2.

GEORGE HAYNES & CO.,
Hampstead Cotton Mills,
CHERRY TREE LANE, STOCKPORT,

MANUFACTURERS OF

Bleached and Absorbent Wools,
GREY WOOL,
COLOURED WOOLS, AND JEWELLERS' SHEETS.
WHOLESALE AND EXPORT ONLY.

Telegraphic address—HAYNES STOCKPORT.

THE PROBLEM OF INFANT FEEDING. MILK VERSUS CEREALS.

Disorders of Nutrition.

QUESTIONS.

The natural carbo-hydrate for the young infant is sugar-of-milk; then why give it starch? The natural albumen for the infant is casein; then why is the gluten in malted food to be preferred to casein? Why is fat, that most powerful and important "force-yielding" principle, and the one in which "infant foods" that do not turn rancid are generally wanting, taken so little into account?

"INFANT FOODS" AND PEPTONISED MILK.

It is worthy of special comment that all the objections raised against infant foods are of a practical nature based on appalling statistics, while those brought against fresh cows' milk partially predigested with Fairchild's Peptonising Powders have been thus far wholly of a theoretical and imaginary nature. This specious kind of reasoning has been occasionally employed, viz.: To use Fairchild's Peptonising Powders means to digest all the infant's milk and leave the stomach nothing to do! when, in fact, it is quite the contrary. And again: No matter how much more and tougher may be the casein in cows' milk than in human milk, if we can only get the infantile alimentary tract to digest for itself the entire compact casein masses [which are irritating, harmful, and foreign to the infant stomach], more will be gained than if by partial peptonisation the casein of the cows' milk is brought within the normal range of the infant's digestive powers! It should be said that such sophistry is not common, and on that account all the more misleading. As it may partially have arisen from a misconception of the bearings of Sir Wm. Roberts's experiments on four kittens, it may remove some prejudice against an invaluable therapeutic measure to consider these experiments.

SIR WILLIAM ROBERTS'S KITTENS.

Sir William says: "I procured four kittens, of the same brood, eight weeks old. Kittens at this age thrive perfectly on an exclusively milk diet. Two of the kittens were fed on natural milk, and the two others on milk predigested until the milk became greyish and bitter, and no longer gave any precipitate with acetic acid, or even with nitric acid." This experiment lasted twenty days, and the "increase of weight was very nearly alike in all four animals," proving that "peptonising the milk in no degree spoils its nutritive value." Here were two kittens which could thrive perfectly on "natural milk," fed for 20 days with a milk every particle of which had been

so fully digested that the stomach had nothing whatever to do. What else could be expected than that the digestive power should be found to be impaired, even when but half the usual amount of work was required of the digestive organs after this enforced rest imposed upon them for a period of 20 days?

DIGESTIVE CAPABILITIES OF INFANTS.

In the above case the kittens were able to digest the milk, yet their digestive functions were kept in complete abeyance for 20 days. In the case of an infant, which *is not able to digest cows' milk*, the milk is peptonised (with Fairchild Peptonising Powders) *enough only* to adequately modify the excessive abnormal demands that would otherwise inevitably be imposed on its digestion. The design of Fairchild's Peptonising Powders is simply and solely to bring cows' milk within the digestive capabilities of the young infant, and as the weeks go by to gradually shorten the time of peptonisation, in order to induce the fullest normal activity of the digestive organs. It is not proposed with Fairchild Peptonising Powders to remove the dangers of the curd of cows' milk, and thereby establish a decadence of the digestive functions, but rather to so materially alter the indigestible casein that the infantile digestion shall find *ample scope for its development*, and be saved from the formidable array of evils incident to improper feeding.

MALTED FOODS.

But why are malted foods administered to young infants? Is it not because cows' milk as given has not agreed, and that when these were added to the milk this was sometimes found less objectionable, and it was therefore inferred that they could not be worse than plain cows' milk, and must be better? But the action of farinaceous matters in milk is simply mechanical, and by using them the important question of the *comparative solubility of the casein* in cows' and human milk is wholly disregarded.

THE EXCRETA.

Fairchild's Peptonising Powders have been demonstrated clinically to work well in actual practice from the very first day of infant life. By them the casein of the cows' milk may be reduced to an equal solubility with that of mothers' milk. Some authorities peptonise the milk and then add a soluble malted food, as the Kepler Extract of Malt, though the Kepler Solution is often preferable. Following this common sense line of treatment, the excreta of the child will be found generally to indicate a healthful condition of all the nutritive functions.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.

CAUTION!

The word "VASELINE" is the Exclusive Property of the CHESEBROUGH MANUFACTURING COMPANY. It is registered as their TRADE MARK for their Emollient, Remedial, and other preparations of Petroleum, and cannot be employed with respect to any goods not manufactured by the Company.

ADDRESS—41 HOLBORN VIADUCT, LONDON, E.C.

THE PRACTICE OF PHARMACY

A TREATISE FOR PHARMACISTS, PHYSICIANS, AND STUDENTS,

By JOSEPH P. REMINGTON, Ph.G.,

Professor of Theory and Practice of Pharmacy and Director of the Pharmaceutical Laboratory in the Philadelphia College of Pharmacy, Pharmaceutical Editor of the United States Dispensatory, &c., &c.

SECOND EDITION.

"A work which is beyond question the most complete of its kind in existence."—*British and Colonial Druggist*.

"No pharmacist can consult its pages without advantage."—*Ibid*.

"The improvements that are almost daily being made in pharmaceutical apparatus and manipulation require judicious periodical compilation to render them really useful. Professor Remington's book certainly includes such compilation, and thus supplies a want keenly felt at the present time."—*Pharmaceutical Journal*.

"There is no work on modern pharmacy which deals so comprehensively with the details of the pharmaceutical art and its appliances as this volume. Its 500 illustrations are most useful aids to the pharmacist in perfecting the practical work of the pharmacy."—*Chemist and Druggist*.

"A veritable *édition de luxe* of the latest and the best pharmaceutical treatise in the English tongue."—*Monthly Magazine of Pharmacy*.

This book is replete with valuable hints, practical suggestions, and explicit directions upon all that pertains to prescribing and prescriptions, and the preparation, compounding, and dispensing of drugs.

"The best work on pharmacy that has ever been prepared."—*Pharmaceutical Record*.

PRICE 21/.

Sole Agents—BURROUGHS, WELLCOME & CO., Snow Hill Buildings, London, E.C.

DRAPER'S INK (DICHROIC)

THE NEW BLACK INK, different from anything else ever produced.

Writing becomes a pleasure when this Ink is used. It has been adopted by the principal Banks, Public Offices, and Railway Companies throughout Ireland.

It writes almost instantly full black.

Does not corrode Steel Pens.

Dries rapidly on the Paper.

Is cleanly to use, and not liable to blot.

Flows easily from the Pen.

Blotting-paper may be applied at the moment of writing.

In Jars, 6d., 1s., and 2s. each.

Can be obtained, in London, through Messrs. BARCLAY and SONS, Farringdon Street; W. EDWARDS and SON, 157 Queen Victoria Street, E.C.; F. NEWBERRY and SON, Newgate Street; S. MAW, SON, and THOMPSON, Aldersgate Street; HAYDEN and CO., 10 Warwick Square, Paternoster Row; HOVEDEN and SONS, City Road; AYRTON and SAUNDERS, Duke Street, Liverpool; GOODALL, BACKHOUSE and CO., Leeds; JNO. HEYWOOD, John Dalton Street, Manchester; JAMES HEMINGTON, 6 Moor Street, Birmingham; HENRY HODDER, Broad Street, Bristol.

BEWLEY & DRAPER, Limited, DUBLIN.

See "CHEMIST AND DRUGGIST," December 15th, 1874.

ALOIN,

THE ACTIVE PRINCIPLE OF ALOES,

MANUFACTURED BY THE DISCOVERERS—

T. & H. SMITH & CO., EDINBURGH AND LONDON.

"The uniformity in strength of Aloin, the smallness of its dose, and the certainty of its action, should commend it to the favourable consideration of all medical practitioners."—*Vide Dr. Wm. Craig's investigations respecting our Aloin, published in the Edinburgh Medical Journal for May 1875.*

Edinburgh Address—21 Duke St. London Address—12 Worship St., E.C.

New York Office—20 Cedar Street: FRA^S. JA^S. MACNAUGHTAN, Agent. [3]



ESTABLISHED 1859.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICE:

NORMANBY CHAMBERS, MELBOURNE.

Published every Saturday.

Subscription 10s. per year, payable in advance;
commencing from any date.

Post free to every country in the world. Single copies, 4d. each

Supplied only to persons connected with the Trade.

For Australasian subscribers the subsidiary journal THE CHEMIST AND DRUGGIST OF AUSTRALASIA is included.

Literary Contents.

PAGE	PAGE
Bankruptcy Reports	767
Continental News	770
Correspondence:—	
The Examinations; Mr. Arm- brecht's Business	782
The Trade Association; The Knights of Pharmacy	783
Dispensing Notes	784
Legal Queries	784
Miscellaneous Inquiries	785
Editorial Notes:—	
Volume XXX	774
The Pepper Adulterations ..	775
Synthesis of the Alkaloids ..	775
Pharmaceutical Imports into Chili	776
Dental Notes	781
Early English Medical Lore ..	778
Estimation of Strychnine and Brucine	772
French Pharmaceutical News ..	769
Gazette	767
German Pharmaceutical Work ..	769
Leaderettes	776
Legal Reports	766
Medical Gleanings	768
Metropolitan Reports	764
Notes of Novelties	771
Provincial Reports	764
Trade Marks Applied for	768
Trade Report	786
Veterinary Treatment: Foot Rot	773

WE understand that the Executive Committee of the Chemists and Druggists' Trade Association are to meet at Birmingham on Monday next to consider the ways and means of carrying out the resolution passed at the London meeting last week to continue the work of the Association.

MESSRS. LEATH & ROSS have lately paid fines amounting to fifty pounds for alleged infringements of the Medicine Stamp Act. They are now offering to supply all their agents with new labels to be substituted for those hitherto used, and which are declared to render the medicines liable. The questions involved are somewhat intricate, and we hope Messrs. Leath & Ross will do the service to the trade generally of ascertaining and explaining in detail the exact position of homœopathic medicines in relation to the Act.

THE anticipated shower of Jubilee honours has been so far much less lavish than was expected. Those who know, however, anticipate further instalments. At present we have to congratulate Dr. Garrod; G. H. Macleod, Esq., surgeon to the Queen, Edinburgh; Dr. Aitken, of Netley Hospital; George Martin Holloway, Esq., brother-in-law of and successor to the late Thomas Holloway; W. C. Leng, Esq., proprietor of the *Sheffield Telegraph*, and once a chemist and druggist; and H. Doulton, Esq., of the famous Lambeth Potteries, maker of filters and chemical stoneware, on whom knighthoods have been conferred. John Simon, Esq., M.D., C.B., late medical officer Privy Council Office, and Dr. Arthur Mitchell, M.D., C.B., Lunacy Commissioner, Scotland, are to be K.C.B.'s. Mr. John William Akerman, Speaker of the Legislative Council of Natal, who is made a Knight Commander of the Order of St. Michael and St. George, was, we believe, at one time engaged in the drug trade at Pietermaritzburg. Dr. James Alexander Grant, of Ottawa, also receives the K.C.M.G.

COMPETITION—No. 11.

DISPENSING LABELS.

IN a paper which we published a few years ago on the cultivation of taste in the practice of pharmacy the writer laid great weight upon the printing of dispensing blanks. The principle which, he asserted, should be followed was to give the written matter prominence and to keep the name and address of the chemist in a subordinate position. The label itself is perhaps not secondary to the manner in which the directions are written; but it is evident that, however neatly a label may be printed, if the directions are badly written, or unequally distributed over the space, all that the printer has done has been undone by the dispenser. This subject is one which troubles most chemists occasionally. They want to see the labels of other chemists. Those in country districts who seldom see printers' sample books would like to know what kind of labels are used by leading houses, and every chance is taken to get a new idea. On the other hand, there is a class who would like to know for certain how much better their labels are than those of all other persons. We should like to satisfy this curiosity, and we now ask our subscribers or their employés to send us one or more of their ordinary dispensing blanks completely filled in with directions and name.

Competitors may send either or all of the particular forms. We propose to make a selection from the specimens sent to us for reproduction. Competitors should therefore pay attention to their penmanship. Writing must be done in black ink. Mixture, pill, ointment, or other dispensing labels are suitable for this competition, which will be open until July 1, and we shall award one guinea for the best label or set of labels sent in, if one person's attempt should be selected, reserving to ourselves, however, the right to distribute instead several prizes of 5s. each. Every competitor must send in his label or set of labels in an envelope bearing on the outside his name and address and the word "Competition," and this envelope must be enclosed in the one addressed to us.

Pharmaceutical Society of Great Britain.

JUNE EXAMINATIONS.

AT a meeting of the Board of Examiners held in London, under the provisions of the Pharmacy Acts, on June 15, 16, and 17, the following passed as Pharmaceutical Chemists:—

Andrews, Edwd. Arthur, London	Sansom, Fred. James, Barrow-in-Furness
Clubb, Wm. Herbert, Liverpool	Webber, Jas. Wilkey, Taunton
Gibbs, Sydney, Eastbourne	
Lang, John West, Southport	

The following also passed as Chemists and Druggists:—

Bishop, Geo. Hy., Southampton	Mitchell, John Albert, Bradford
Cole, Vincent Theobald, London	Nicholls, Chas., Wellington (Somerset)
Cross, Arthur Richd., Shrewsbury	Payne, Wm., Wendover
Driffeld, Robert, Spilsby	Rideal, Frank, Hyde
Escrutt, Harold Teal, Driffeld	Southam, Stanley, Manchester
Foot, Wm. Rolstone, Whiteaway, Totnes	Tharp, Arthur, Croydon
Gardner, Fred. Wm., Newark	Thomas, John Evan, St. Clears
Gould, Wm. Emanuel, Twickenham	Thomas, Lewis, Bristol
Gray, Wm. Edwin, Pickering	Leggett, Mortimer Augustus, Tothill (London)
Griffith, Martin Luther, Weston-super-Mare	Vause, John Edwd., Swansea
Hanslow, Chas. Edwd., Woodford	Walden, Frank, Arundel
Harry, Joseph, Swansea	Wallett, Geo. Jas., Oxford
Hart, Jane, London	Westmoreland, Wm. Hy., Salisbury
Hobbs, Harry, London	White, Thos. Hy., Whitby
Hucklebridge, Wilfred, London	Woodward, Moses Mellor, Nottingham
Langford, Fred. Chas., "	
Loveluck, Griffith David, Taibach	Young, Edwd. Francis, Portishead
Marsh, Wm. Hy., Old Catton	

ADVERTISEMENTS of employers and assistants can now be received by us up to the first post on Friday mornings, and will be inserted in the current week's issue.

Metropolitan Reports.

FIRE AT MESSRS. LYNCH & Co.'s.—Between seven and eight o'clock on Monday night considerable alarm was caused by an outbreak of fire on the premises of Messrs. Lynch & Co., druggists' sundrymen, Trinity Court, Aldersgate Street. The call was responded to by the presence of engines from several stations in the B district. At first the outbreak threatened to result in a great fire, and it was not till three powerful jets of water were employed in the extinguishing force that the firemen succeeded in an admirable stop. The official intimation of the damage sustained reported to the chief office of the brigade represented the ground and first floors and contents being severely damaged by fire. No cause is assigned as to the origin of the outbreak.

LAUDANUM-POISONING.—Mr. Wynne E. Baxter held an inquest on Monday, at Bow, touching the death of Walter White, aged forty, a clerk lately employed at a pantechonion warehouse in Blenheim Street, Oxford Street. The wife of the deceased said he had been drinking and had had some domestic trouble. He took a quantity of laudanum and died about an hour and a half afterwards. The deceased's father-in-law voluntarily came forward, and stated that his name was William Turner. He was a chemist and druggist. He had never supplied the deceased with any laudanum. On Wednesday night he met the deceased at a social club, and afterwards remarked to his wife that he seemed very strange in his manner. The coroner observed that there were several mysterious features about the case. The deceased had lost his watch and his purse. There was nothing to show that he had committed suicide. In the interests of justice he should adjourn the inquiry. A juryman having stated that the witness Turner called on him at his house and talked about the case, the coroner intimated that the witness had acted very indiscreetly. The inquiry was then adjourned.

BRITISH PHARMACEUTICAL CONFERENCE.—A meeting of the Executive Committee was held at 17 Bloomsbury Square, on Thursday, June 16, 1887, at 4 P.M. Present: Mr. Atkins, President, in the chair; Messrs. Attfield, Bengel, Carteighe, Davies, Gerrard, Plowman, Williams, and Woolley; Dr. Thresh and Mr. W. A. H. Naylor, the hon. general secretaries; and Mr. W. H. Ince, Association secretary. The minutes of the previous meeting were read and confirmed. Letters regretting inability to attend were read from Messrs. Barclay, Conroy, Dott, Groves, and Umney. Mr. Woolley reported that the Local Committee had obtained permission to hold the ensuing Conference meeting in the Owens College, Manchester; that a number of beds had been secured at the Grand and Victoria Hotels; that arrangements had been made to hold the reception and conversazione at the Grand Hotel, and for the members to visit the Exhibition and Botanical Gardens at Old Trafford; and that it had been decided to take the members and friends on the Thursday to visit Matlock, which is the centre of an exceedingly picturesque locality, and possesses ample accommodation for entertaining large parties of visitors. Mr. Bengel also spoke of the arrangements at Manchester being in a forward state, affording every promise for a successful gathering. Dr. Attfield proposed and Mr. Williams seconded:—

That the general arrangements submitted by the deputation from Manchester be adopted, and that the details be left to the local committee in correspondence with the General Secretaries.

A suggested list of officers for 1887-8 was considered, and the resignation of Mr. W. H. Ince, the assistant-secretary (who is leaving England shortly), was accepted. Several donations of societies' proceedings, &c., to the Conference were announced, and the thanks of the Committee were accorded to the respective donors, and letters of thanks for year-books were read from several Pharmaceutical Societies and libraries. An application from Mr. W. Elborne, Owens College, for the sum of 5*l.* for a further research on "Strophanthus and Strophanthin" was unanimously granted. Thirty-one gentlemen were elected to membership.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.

BRISTOL.

ONE EVENING A WEEK.—Mr. Henry Hodder's establishment is to be closed henceforth at 5 P.M. on Wednesday evenings.

LEEDS.

DAMAGES AGAINST A CHEMIST.—At the Leeds County Court, on June 15, before his Honour Judge Greenhow, Mary Birch, dressmaker, Springfield Place, Hunslet, brought an action against Mr. A. Wood, chemist, Church Street, Hunslet, to recover 16*l.* 5*s.*, as damages for injury she had received owing to his having wrongfully supplied her with a compound called "tincture of steel" instead of "tincture of myrrh." In consequence of the defendant's mistake, Mrs. Birch, who had taken a dose of the compound, was ill for several weeks, thus being unable to carry on her business. It was alleged, for the defence, that the plaintiff's messenger had asked for tincture of steel by mistake, and had been supplied with that article.—His Honour gave a verdict for the plaintiff for 15*l.* 15*s.* and costs. Mr. Foster appeared for the plaintiff, and Mr. Warren represented the defendant.

THE MYSTERIOUS POISONING CASE.—It will be remembered that the inquiry into the death of Mrs. Parry, of Beeston Hill, the first part of which we reported last week, was adjourned until the 24th inst. Owing, however, to the delicate state of health of one of the witnesses in the case, it was found necessary to take some of the evidence on Monday.—The Coroner (Mr. J. C. Malcolm) stated that a post-mortem examination had been made, and that the contents of the stomach were in the possession of Mr. Scattergood, whose analysis would probably be completed by the end of the week.

Elizabeth Dixon, 6 Marquis Street, said that she had known Mrs. Parry for three years, and was in her house on Friday morning. She complained of pains, and said she was going to get twopennyworth of pennyroyal. There was a bottle on the table. It was the same bottle in which the poison was subsequently found. It was labelled "pennyroyal." The name on the label was Smith, chemist, Beeston Hill. Mrs. Parry had had the bottle some time, and witness's little boy had often fetched pennyroyal for her in that bottle. She and deceased went out together; the latter had a bottle with her. Witness saw her go into Mr. Slater's shop. Witness afterwards returned home, and a few minutes afterwards was looking out of her window, when she saw Mrs. Parry coming out of her own house with her knitting in her hand. In coming down the steps she seemed to slip. Witness ran across the road and asked what was the matter. Mrs. Parry said she taken the stuff in the bottle, but it was not pennyroyal; she knew the taste of that too well. She said she had got it at Mr. Slater's, down the road, and had been given poison in mistake. When asked who had given it to her, she said a lad about sixteen years of age, with black hair. She complained of her legs being stiff and feeling dead. Witness was present when Mrs. Parry died. She had known her take pennyroyal on many occasions. She was quite cheerful on Friday morning.—By the Jury: The deceased did not say why she went to Mr. Slater's instead of Mr. Smith's. Witness searched Parry's house, but could find no bottle other than the one in which Mrs. Parry had obtained the liquid.

Several women gave corroborative evidence.

Sergeant Sykes (Coroner's officer) said he went to Mr. Slater's shop on Monday night, and asked Arthur Clay, the assistant, for twopennyworth of pennyroyal—for the same quantity he had sold to the woman. He replied that he sold her threepennyworth. What witness received he gave to Mr. Scattergood. The assistant also told him that he labelled the bottle into which he put the pennyroyal for the woman.

Mr. John Slater, chemist, Beeston Road, said that Arthur Clay was in his service as an improver. He had been with

him about fourteen months. He had tincture of nux vomica in stock, but it was not kept near to the pennyroyal. He had no preparation of strychnine in his shop except "vermin killer." He did not remember having purchased any since he went to the shop. He had not examined his books since the inquiry commenced. He got his goods principally from Hirst, Brooke & Hirst's. After hearing of the woman's death, he went to his shop and asked his assistant why he had not labelled the bottle. He replied that he had done so. He went round the counter, and found two loose pennyroyal labels lying on the top of the drawer. He looked in the till, and there was only 7d. in copper. There was no silver in it at all.

The Coroner, addressing the witness, said he would see the effect of the evidence, and he hoped his assistant would consider his position before the next hearing, and let them have all the truth about the matter. He would not call him then, but allow him time to consider.

The inquiry was then adjourned until Friday, the 24th inst.

A "REAL OLD LOVE STORY."—A clerk, named Gosney, thirty-four years of age, who resided at Hunslet, committed suicide on Sunday by drinking sixpennyworth of laudanum. It was stated at the inquest that he had spoken about dying for several weeks, complaining that he could not stand his office work. Before he died he said that the cause of his taking poison was "a real old love story, which he had never told to anybody."

LIVERPOOL.

AT the annual meeting of the Runcorn Board of Commissioners held on June 15, Mr. Dobson, chemist and druggist, was unanimously elected chairman of the Board.

CARBOLIC ACID POISONING.—A child of four years, at Tranmere, last week, found some carbolic acid on the kitchen table, drank some and died.

NAPHTHA ON BOARD.—Captain McNeill, of the steamship *Wasp*, was summoned on June 17 by the Mersey Docks and Harbour Board on the charge of having entered the Canning Dock with a quantity of naphtha on board without having notified the harbour authorities of the nature of the cargo, as required by the Petroleum Act, 1871. He was also charged with having matches other than safety matches on board, and with using a fire and naked light. There were on board four puncheons of naphtha. They were on the deck, covered with a tarpaulin. Defendant pleaded that he was ignorant of the bylaws. The naphtha was covered for protection, and not from any desire to conceal it. A fine of 5*l.* and costs was inflicted in the first instance, and one of 10*l.* and costs under the other informations.

LAUDANUM-POISONINGS.—Mrs. Mary Ellen Anthony, of Walton, was committed for trial on June 17 on a charge of causing the death of her three children. She had herself stated that she first gave them laudanum to quiet them, and then cut their throats. Francis Rowe, chemist, who sold the laudanum to prisoner's daughter, aged eleven years, said he acted quite in conformity with the Poisons Act. Mr. Marks, who prosecuted, said that there should be some restriction, and chemists should not be allowed to sell laudanum to little girls eleven or twelve years old.

MANCHESTER.

TERRIBLE EXPLOSION.—A terrific explosion took place on Wednesday last at the large chemical works of Messrs. Roberts & Dale, Cornbrook, the result of which was to completely wreck the extensive works of the firm and to inflict considerable injury upon the surrounding property. The works are situated just off Chester Road, close to the canal, and adjoining one of the entrances to the Pomona Gardens, and cover a large space of land. About noon the neighbourhood was alarmed by a sound which resembled loud claps of thunder or the discharge of the heaviest artillery. Immediately afterwards a dense volume of smoke was seen to arise from the works. One of the effects of the explosion was to set on fire a quantity of liquid chemical, and from this burning mass proceeded dense volumes of sulphurous smoke, which wreathed themselves into the most fantastical

shapes and completely hid a larger portion of the devastated works, thus adding greatly to the difficulties and dangers of the fire-brigades which soon assembled. Rumours spread in the city that a large number of workmen had been killed, but as far as was ascertained up to Wednesday night only one death had occurred at the works. The body of a man named Martin was found, face to the ground, and with a brass jet in his hand. Later on it was found that a child in a cradle in a cottage near the works was killed by the force of the explosion dashing it against the wall. The Pomona Palace, the Agricultural Hall, and a great many mills and houses in the locality were damaged by the explosion or by the subsequent fire, and 14 persons were treated at the Salford Hospital for wounds occasioned at the time of the outburst. The firm were reluctant to give information suggestive of the cause of the disaster. When asked by a newspaper representative as to the nature of the chemicals that were in process of manufacture, the latter was told that it was not necessary that the public should be informed on such matters. Neither the foreman nor anyone else knew what was being done. "We did start making nitrate of lead," said the foreman, "but we stopped that because the men did not turn up. I suppose it's the Jubilee." What the consequences would have been if the full staff had been at work it would be fearful to conjecture.

From later information it appears that picric acid was the chemical in the manufacture of which the explosion occurred. It is believed that a fire broke out in a store where some picric acid was being dried. A full inquiry into the circumstances is to be made.

NOTTINGHAM.

A SERIOUS CHARGE.—At the Town Hall, on Monday, before Alderman Barber and Mr. Fitzhugh, Job Rackham and Frank Lewis were brought up in custody charged with obtaining goods from Frederick Johnson by means of a forged undertaking, on May 20. The information was laid by Mr. Johnson, the manager for Mrs. White, chemist, London Road and Wilford Road. It was stated that on May 20 Lewis went to Mrs. White's shop in Wilford Road and asked for certain articles. He stated that he wanted them for a Mr. Harrison, a builder, of Dunkirk, but the goods were refused to be supplied unless an authority or request was sent by Mr. Harrison for them. Lewis then went away, and returned shortly afterwards with the following undertaking:—

Dunkirk, Old Lenton, Nottingham, May 20, 1887.

MR. JOHNSON,—I undertake to pay you the amount of the account for goods supplied by you to F. Lewis up to and not exceeding 1*l.*

Yours respectfully,

E. HARRISON.

The charge was that that authority was not written by Harrison, but by Rackham, who was living in the same house as Lewis. On the receipt of the undertaking the goods were supplied. After some evidence, prisoners were remanded for a period not exceeding eight days, being admitted to bail in their own recognisances of 10*l.*

SUNDERLAND.

MR. JOSEPH POTTS, 42, dentist, and formerly a chemist at Seaham Harbour, committed suicide last week by taking a quantity of paregoric. Domestic trouble seemed to have been the cause of the act.

WALSALL.

POISON BY MISTAKE.—Two cases of poisoning by mistake have been treated at the hospital here during the past week. One case was that of a woman who had taken some eyelotion, and the other that of a man who had taken oxalic acid in mistake for salts. The oxalic acid was kept in a tin box in the cupboard.

WINDSOR.

POISONED IN A RAILWAY CARRIAGE.—Mr. Martin coroner for Windsor, held an inquiry on the 16th inst respecting the death of William Walford Powell, aged 25, a

student of Guy's Hospital, who was found dead on the previous Tuesday in a train at the Windsor Station of the South-Western Railway. The deceased, who lived with his father at Richmond, was in bad health, and had been in the habit of taking chloral to induce sleep and prussic acid to allay vomiting. On Tuesday night a resident of Windsor left Richmond by the 9.30 train. On getting into a first class carriage he saw a gentleman sitting at the farther end of the compartment. On arriving at his destination he said, "This is Windsor," and touched the passenger before quitting the train to arouse him. He was dead. A phial containing some diluted prussic acid was found near the deceased, and a sufficient quantity of the same poison to account for his death was subsequently found in his stomach. The jury returned an open verdict.

WOLVERHAMPTON.

POISONING AT A CHEMICAL WORKS.—Mr. E. B. Thorneycroft (deputy-coroner) has held an inquiry, which was concluded on June 17, into the circumstances attending the death of Joseph Key, labourer, who was seized with illness whilst employed at the works of Messrs. E. W. T. Jones & Co., manufacturing chemists, Monmore Green, on June 10, and died on the following day. The deceased had been engaged in trying to move an agitator fixed in a boiler containing flux skimmings and water, but Mr. Jones, one of the partners and analyst to the borough and county authorities, deposed that he knew of nothing in the boiler to constitute danger to the deceased working therein. Mr. R. A. Willcock appeared on behalf of Messrs. Jones & Co., and Mr. C. C. W. Hoare, the inspector of factories, was also in attendance. Mr. J. W. Scott, surgeon, who had made a post-mortem examination of the body, said he found it that of a healthy man. The skin on the face was almost black, and of a dark green colour on other portions of the body. From the examination he was unable to account for death. Dr. C. A. MacMunn stated that he had had a portion of the liver, spleen, and kidney of the deceased handed him for examination. The liver and spleen were of a dark bluish green colour, which was unusual. He thought the deceased had probably inhaled arseniuretted hydrogen, and he afterwards discovered, by the Reinch's test, a small portion of arsenic sufficient to account for death. From his knowledge of the case and the post-mortem appearances he should say the arsenic had been inhaled. This hydrogen might be generated by the action of an acid in sufficient quantity on metal containing arsenic, by an electric current, or by the gas being shut up in the pores of the metal. Death from arseniuretted poisoning was of very rare occurrence, only ten or twelve cases being known to the profession. The presence of the poison in the body would account for the peculiar colour of the skin. By Mr. Hoare: The flux skimmings might have occluded the gas. By Mr. Willcock: There would be nothing in the mixture to cause a person with chemical knowledge to anticipate the generation of arseniuretted hydrogen. The hydrogen might have been given off without being perceived, but it would be most unusual under the circumstances described. Mr. C. A. Newnham agreed with the evidence of Mr. MacMunn, and was quite at a loss to understand how the gas could have been formed. Mr. E. W. T. Jones was also sworn, and said he thought there had been some occluded gas in the flux skimmings, but it had not been given off through any chemical action, or the other men who went into the boiler after the deceased would have suffered also. The Deputy-Coroner having summed up, the jury returned a verdict of "Accidental death," and added a rider that inasmuch as it had been ascertained that the process at the works of Messrs. Jones & Co. generated arseniuretted hydrogen, more care should be taken in this work in the future. Mr. Jones promised that he would thoroughly investigate the matter, and taken all precautions in the future to prevent a recurrence of such an accident.

SCOTLAND.

EDINBURGH.

CRICKET.—Raines & Co. C.C. met Duncan, Flockhart & Co. C.C. on June 8, and defeated them by 69 to 40. Robertson (22) and Rellow (18), in the first-named club, were the top scorers.

ASSISTANTS' ASSOCIATION.—The annual meeting of this Association was recently held. The report showed a satisfactory state of affairs. The membership for the first time in the history of the Association exceeded the century; and although the meetings had been more numerous, and the session consequently more expensive, a balance of 3*l.* 15*s.* remained on hand. Mr. George Lunan, pharmaceutical chemist, was appointed President, and the following appointments were also made:—Vice-president, Mr. George Coull; Secretary, Mr. A. W. King, 119 George Street; Assistant-Secretary, Mr. George Wilson, 45 Forrest Road; and Mr. J. Mackenzie, Treasurer.

Arrangements have been made for four botanical excursions during the summer—namely, to Colinton Dell, on Wednesday evening, June 22; Craigcrook Quarry, on Wednesday morning, July 6; to Poets' Glen (Currie), on Wednesday morning, July 13; and to the Botanical Gardens, on the first Wednesday in August. Those, whether connected with the Association or not, who wish to attend these should write to the Secretary or his Assistant.

Legal Reports.

THE HOP BITTERS COMPANY v. THE SOUTHAMPTON DRUG COMPANY.

A MOTION in this action came before Mr. Justice Stirling, sitting in the Chancery Division of the High Court of Justice, on Friday of last week.

Mr. Aston, Q.C., asked that the motion should stand over until after the cross-examination of witnesses.

Counsel for the defendant company did not object to the motion standing over, but as thirty-five out of forty of the deponents lived at Southampton, he asked that the cross-examination should be taken at Southampton instead of in London.

His Lordship said the cross-examination should be taken where it could be taken cheapest.

The motion was ordered to stand over, and leave was given to cross-examine the witnesses in Southampton.

LOCKWOOD v. THE HOP BITTERS COMPANY.

A MOTION in this action also came on Friday before Mr. Justice Stirling, and by leave the motion was treated as the trial of the action.

Mr. Seward Brice, Q.C., who appeared for the plaintiff (a shareholder in the company), said the motion was to restrain the directors of the defendant company from spending 1,000*l.* out of the capital of the company in a "trophy," to be competed for at Wimbledon by the members of the National Rifle Association. He submitted that, such expenditure being unauthorised by the articles and memorandum of the company, was *ultra vires*.

Mr. Aston, Q.C., for the directors, read the affidavit filed by the managing director (Mr. Cameron), stating that the trophy would remain the property of the company, and that this 1,000*l.* expenditure was intended for advertising hop bitters, and much good to the company was expected to be derived from such expenditure.

His Lordship, being satisfied on the evidence that the 1,000*l.* was to be spent in advertising, said the Court had no power to interfere in the internal management of the company, and dismissed the action.

A SODA TRANSACTION.—On the 16th inst., in the Queen's Bench Division, the case of Brunner v. Bury came up for hearing before Mr. Justice Mathew and Mr. Justice Cave, sitting in the Divisional Court, in the form of a special case. In 1880, the plaintiff, Mr. Joseph Paul Brunner, of Liverpool, sold to the defendant through his (plaintiff's) broker, Mr. Carr, of Batavia Buildings, Hackin's Hey, Liverpool, 500 tons of cream caustic soda at 9*l.* 2*s.* 6*d.* per ton, to be delivered at the rate of 50 tons per month, for ten consecutive months. The defendant, Mr. John H. Bury, of Accrington, did not take the soda, which was consequently re-sold; a loss of 404*l.* 19*s.* 2*d.* being entailed. The question for the Court to decide was whether, in the correspondence, there was any

memorandum or record of the bargain in writing, signed by the defendant, within the 17th section of the Statute of Frauds. Mr. Walton appeared for the plaintiff, Mr. Chitty representing the defendant. After examining the correspondence, telegrams, &c., relating to the transaction, their lordships held that there was a memorandum of the bargain within the 17th section of the Statute of Frauds. They therefore gave judgment for the plaintiff for 404*l.* 19*s.* 2*d.*, with costs, execution to be stayed on defendant bringing into court the sum of 500*l.* within ten days.

In the report of the case of *Bartlett Hooper v. Annett*, in the City of London Court, reported last week, it should have been stated that the transaction in question occurred at a branch shop in the Borough of which Mr. Annett was the proprietor, and not at his principal establishment, 18 Norton Folgate.

BANKRUPTCY REPORTS.

Re HENRY JAMES PRATT, of 3 Blossom Street, York,
Chemist and Druggist.

THE statement of affairs in this matter is as follows:—To unsecured creditors, 1,117*l.* 2*s.* 8*d.*; creditors fully secured, 1,221*l.* 18*s.*; less estimated value of securities, 1,525*l.*; leaving a surplus of 303*l.* 2*s.*; total, 1,117*l.* 2*s.* 8*d.* Assets: By household furniture, 25*l.*; other property, viz. sale of business 795*l.*; book debts good, 96*l.* 3*s.* 6*d.*, estimated to produce 72*l.* 2*s.* 8*d.*; surplus from securities in the hands of creditors, fully secured, 303*l.* 2*s.*; total, 1,195*l.* 4*s.* 8*d.*, showing a surplus of 78*l.* 2*s.* over the liabilities.

Official Receiver's Observations.—The debtor has absconded, and is believed to be in Canada. Previous to his departure he had disposed of his business to Mr. Parkin, who is now in possession of it. The debtor had only received a small portion of the sale money before he left. The statement of affairs is necessarily imperfect, as the debtor has left no books, and it is probable that the total liabilities will be much larger than shown above. The following is a list of the creditors:—

Unsecured.

	£	s.	d.
Bush, Wm., Son & Co., London	26	13	1
Clarke, Bleasdale & Co., York	60	7	8
Hirst, Brooke & Hirst, Leeds	45	15	2
Lofthouse & Saltmer, Hull	22	8	5
Raines & Co., York	239	1	1
Russell, Geo. Hy., York	307	10	0
Shaw, Thomson & Co., Hull	37	18	0
Southall, Bros. & Barelay, Birmingham	14	10	11
Warwick Bros., London	315	0	0
Ward, Wm. Hy., Harrogate			
Creditors under £10	47	18	4
	1,117	2	8
Creditors Fully Secured	1,221	18	0

J. L. WOODALL.

AT the Birkenhead Bankruptcy Court on June 15 the examination of Mr. J. L. Woodall, formerly a chemist of Neston, Cheshire, was adjourned for a fortnight to enable him to prepare a cash account of his transactions during the last three years.

In the Birkenhead County Court, on Monday, Rosina Batley, of 67 Eldon Place, Liverpool, sought to reverse the decision of the Official Receiver not to admit her proof for 230*l.* on this estate. The plaintiff, who is sister-in-law to the bankrupt Woodall, alleged that during the last ten years she had lent him the sum stated out of 323*l.* which she had received from her father under a deed of gift. The money was lent to the bankrupt at different periods, but she could produce no receipts granted at the time of the loans. In the course of her examination the plaintiff admitted that she had gone away and had lived with the bankrupt Woodall at Southampton and Jersey as his wife, and that in consequence Mrs. Woodall (her sister) had obtained a divorce from the bankrupt. Woodall disposed of his business at Neston in the autumn of last year, and plaintiff afterwards lived with him as his wife in the South of England. His honour supported the rejection of the claim, and refused the application with costs.

Gazette.

PARTNERSHIPS DISSOLVED.

ASPINALL & BALLANTYNE, Darwen, surgeons.

CARTER & HORNER, Salterhebble, near Halifax, manufacturing chemists and drysalters.

DAVIDSON & SIM, Aberdeen, wholesale chemists and druggists.

HILLS & LYFORD, Bread Street Hill, City, essential oil and drug merchants.

THE BANKRUPTCY ACT, 1883.

RECEIVING ORDER.

VICKERMAN, THOMAS, late of Kidderminster, now of Kingston-upon-Hull, wholesale druggist and pickle manufacturer.

FIRST MEETINGS AND PUBLIC EXAMINATIONS.

BENTLEY, CHARLES EDWARD, Olney, Buckinghamshire, surgeon. June 27, Bull Hotel, Olney; July 12, County Hall, Northampton.

DESBOROUGH, JAMES GEORGE (trading as Taylor & Co.), Daventry, chemist and druggist. June 30, Wheat Sheaf Hotel, Daventry; July 12, County Hall, Northampton.

ETIENNE, VICTOR EMILE (late trading as Connah & Co.), Gordon Road, Ealing, Oxford Street, and Uxbridge, not now residing in England, trunkmaker and annato manufacturer. June 28, 33 Carey Street, Lincoln's Inn; July 15, 34 Lincoln's Inn Fields.

FERRIANI, ALESSANDRO, Gower Street, doctor of medicine. June 29, 33 Carey Street, Lincoln's Inn; July 15, 34 Lincoln's Inn Fields.

MARTIN, HENRY (trading as John Hassall), Barking, Essex, and St. Paul's Churchyard, brush and comb manufacturer and sponge merchant. June 29, Bankruptcy Buildings, Portugal Street, Lincoln's Inn Fields; July 14, 34 Lincoln's Inn Fields.

ADJUDICATIONS.

ETIENNE, VICTOR EMILE (also late trading as Connah & Co.), late of Gordon Road, Ealing, and Oxford Street; also trading at Uxbridge, not now residing in England, trunk maker and annato manufacturer.

FERRIANI, ALESSANDRO, Gower Street, doctor of medicine.

VICKERMAN, THOMAS, late of Kidderminster, now of Kingston-upon-Hull, wholesale druggist and pickle manufacturer.

WHITEHEAD, EBENEZER, King's Lynn, and Bawsey, Norfolk accountant, oxide of iron merchant, and paint manufacturer.

NOTICE OF DIVIDEND.

ATKINSON, ROBERT JOHN, Lincoln, chemist and druggist. First and final dividend of 2*s.* 11*d.* June 27, Official Receiver's office, Lincoln.

ORDER MADE ON APPLICATION FOR DISCHARGE.

WILCOX, HENRY (trading as R. Lake & Co.), Plymouth aerated water and syrup manufacturer. Discharge granted unconditionally.

A BILL has been presented to the German Reichstag, probably in connection with that for the prevention of lead-poisoning, of which mention was made in our issue of April 2, having for its object the prohibition of the employment of noxious dyes in the manufacture of alimentary substances and utensils employed for their preparation. Substances containing antimony, arsenic, barium, lead, cadmium, chrome, copper, mercury, uranium, zinc, tin, gamboge, picric acid, or dinitro-resol are to be prohibited.

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds for objection to the registration of any of the following marks may, within two months of the date of this journal, give notice in duplicate at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." The address of the Patent Office is Southampton Buildings, London, W.C.

From the "*Trade Marks Journal*," June 22, 1887.

"CROSFIELD'S PERFECTION SOAP," with other wording, in special design, on label; for perfumery, &c. By Joseph Crosfield & Sons, Warrington. 58,487.

"THE QUEEN'S ROYAL STARCH GLAZE," with girl's head and the word "Borax." Other labels for borax, dry soap, &c. By Jesse Ascough, Handsworth, Birmingham. 61,022-3-4.

Circles filled with Turkish characters; for household and toilet soaps. By Thomas Gibson Bowles, newspaper proprietor, 12 Tavistock Street, W.C. 61,428-9.

"MISTUS"; for chemical preparation as medicine for human use. By T. F. Evans, dispensing chemist, Flint. 61,432.

Unicorn's head and word "Premier" in shield; for fruit essences. By John Cummock, manufacturing chemist, 32 Main Street, Glasgow. 61,490.

"HUGGETT'S HYPODERMIC SOLUTIONS"; for hypodermic solutions. By Sydney Huggett, chemist and druggist, Criterion Buildings, Upper Holloway. 61,806.

Figures cleaning a globe; for various chemical substances. By Joseph Crosfield & Sons, Warrington. 61,866-7-8-9.

"SALUFER"; for common soap, starch, blue, and other laundry preparations, and for toilet soap. By William Thomson, chemist, Royal Institution, Manchester. 61,983, 62,030.

"KIRKSTALL BRAND," with picture of Abbey; for French varnish. By Ross & Co., 73 Briggate, Leeds. 62,126.

"BRITT'S PODAGRINE," in garter surrounding device; for medicine. By W. Britt, shoemaker, 14 Thornton Street, South Street, Walworth. 62,306.

"GOLDEN EYE-WATER," and other words, round an eye; for eye-water. By John Butters, clothier (trading as J. Bute), 8 Madeley Street, Derby. 62,318.

"STORM MATCH," with man on boat lighting pipe in storm; for inextinguishable matches. By C. H. Russell, gentleman, 80 Gray's Inn Road. 62,421.

"BOWMAN SMITH'S COLD CURE," surrounding monogram; for medicine. By Alfred Bowman Smith, 20 Featherstone Buildings, Holborn, W.C. 62,986.

"TICANCO"; for medicine for tic. By Edward Machon, chemist, Derby. 63,338.

"BROMO SODA," with signature of depositors; for medicine. By Wm. R. Warner & Co., manufacturing druggists, 1223 Market Street, Philadelphia, U.S. 64,251.

Medical Cleanings.

BREVITIES.

IODIDE OF POTASSIUM has been successfully used by a German physician in the treatment of diphtheria. A teaspoonful of a 1 in 20 solution was given every hour to a child of seven years.

TURPENTINE has been recommended for relief of impetigo by application to the scalp. The part should five minutes afterwards be washed with carholie soap and warm water, and lastly tincture of iodine should be applied.

A MEXICAN MALLOW, known as the "ball of fire" (*bola de fuego*), has been used by Mexican physicians in the form of a decoction for the cure of the form of leprosy known as *lepra maculosa*. Two patients in a hospital in Mexico have been cured with the remedy.

LIQUID VASELINE is a bloomless and odourless paraffin oil of the heavy kind. Such a paraffin is recognised in the German Pharmacopoeia under the name "*Paraffinum liquidum*." The specific gravity of this body should be 0.840, but what has been ordered for subcutaneous injections should have a specific gravity of from 0.870 to 0.895.

CONDURANGO AS A CANCER REMEDY.—This drug is practically obsolete in this country, but in Germany it is still used, and with some success, in the treatment of cases of carcinoma and ulcer. Dr. Riess, of Berlin, has recently published notes of cases which show the value of the drug in gastric carcinoma, more conclusive than any that have hitherto appeared. Dr. Riess doubts whether its qualities as a stomachic are better than those of other drugs of that class, and says he has not found it efficacious in cases of cancer where the stomach is not primarily involved. He believes that the drug has a local action, and is convinced that in the worst cases it prolongs the life of the patient.

TAR PASTILLES.—At a recent meeting of the Society of Therapeutics, Paris, Dr. Mayet, jun., made a communication on the preparation of tar pastilles without sugar for the use of diabetic patients. The following is his formula:—

Norwegian tar	2 grammes
Bicarbonate of soda	18 "
Phosphate of lime	30 "
Ol. anisi	gtt. v.

Make into a mass with tragacanth mucilage and divide into 100 pastilles. [These might be made sweet with saccharin, which has no ill effects on diabetic patients.—Ed.]

NITRITE OF AMYL FOR AFTER-PAINS.—Mr. Willesey Kendle, M.R.C.S., writing to the *Lancet*, states that when attending a lady in her confinement, who suffered greatly from after-pains, and being too far distant from his surgery to get the ordinary remedies, he broke a couple of nitrite of amyl capsules (4 grains in each) into a smelling-bottle, and directed the patient to take two or three deep inhalations when she felt a pain coming on. The effect was simply magical; the pains were immediately relieved, and shortly ceased altogether, the patient being soon able to take some refreshing sleep. He has also found this drug invaluable in the sickness of pregnancy and in obstinate cases of dysmenorrhœa. Inhalation seems to be more certain and lasting than the internal exhibition of the drug.

SYPHILIS.—At the same meeting M. Martineau read a paper regarding the uses and effects of the subcutaneous injections of ammonia-mercuric peptone in the cure of syphilis. He had administered no fewer than 180,000 of these injections, and was convinced that by their use he could prevent the syphilitic contagion being conveyed to the fœtus. He recommended the injections to be made only with clear and neutral solutions, and that slight friction be applied after the use of the hypodermic syringe. A note by M. Bedoin was also read in which he strongly condemned the use of calomel injections for the same purpose, while Dr. Dujardin-Beaumetz strongly recommended a mixture of 1 gramme of yellow oxide of mercury in 30 grammes of the new liquid vaseline vehicle for subcutaneous injections. This vehicle, he states, does not give rise to any irritation whatsoever, nor cause pain.

THE WORLD'S PRODUCTION OF SPONGES.—*Le Mémorial Industriel* states that the production of the sponge fisheries in the various parts of the world is valued at 400,000*l.*, composed of 280,000*l.* for the products of the Levant, Syria, Tunis, Tripoli, and the Isle of Cyprus, and 120,000*l.* for those of the Bahamas, Florida, and Cuba. France imports from the Levant from 160,000*l.* to 200,000*l.* worth and about 80,000*l.* worth from the Bahamas and Cuba. England and the United States are said to absorb the Florida and Cyprus sponges. The transit of sponges from the Levant is made by Marseilles; and from the Bahamas and Cuba by St. Nazaire and Havre. The French packet boats of the Transatlantic Company bring about 200 bales of sponges monthly, pressed like bales of cotton, of which the weight is from 60 to 80 kilo. per bale. The Cuban sponges are stated to be growing in popularity, owing to their good quality, as well as their low price.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

LUCIE-EUGÉNIE GUILLOTEAUX, wife of M. Chatin, the former director of the Paris College of Pharmacy, died on June 16, aged 63.

DR. VERNEUIL (Aristide-Auguste-Stanislas) was, on June 20, elected a member of the Academy of Sciences, for the section of Medicine and Surgery, to occupy the seat of the late Dr. Gosselin. Dr. Verneuil, a native of Paris, is already a member of the Academy of Medicine, and occupies the chair of clinical surgery at the Faculty of Medicine.

GENEROUS BEQUESTS.—The President of the Montpellier Faculty of Medicine has been authorised to accept legacies from Dr. Buisson, consisting in the gift of his medical library, together with 10,000f., to build a hall for its installation, and 5,000f. for a catalogue, and a sum of 100,000f. for the foundation of five annual prizes to be known under the name of *Buisson prizes*.

DEATH OF P. P. H. BLONDEAU.—The Paris Society of Pharmacy lost another member nearly at the same time as Stanislas Martin, in the person of Pierre-Paul-Henri Blondeau. Deceased was born at Paris in 1823, graduated as a pharmacist of the first class, in 1849, at the Paris College, with a thesis on the extracts of cinchona, and was for years engaged in business as a practical pharmacist. He filled at one time the presidential chair of the Paris Pharmaceutical Society, and was universally respected and esteemed.

PRIZES FOR THE BORDEAUX STUDENTS.—An anonymous friend of pharmacy has presented to the Bordeaux Pharmaceutical Society an income of 100f. in French Consols, to found one or two annual prizes for young pharmacy students presenting themselves for the preliminary examination (*examen de validation de stage*). The prizes are to be known as the Pharmaceutical Society prizes, and to be awarded in July and November to the most meritorious young men.

SCIENTISTS AND QUARANTINES.—While the Maritime Exposition is in progress at Havre, the Society of Hygiene of that town have projected to hold a scientific congress to examine and discuss the question of quarantines, and to improve their mode of enforcement. The conclusions reached at Rome in 1884 and Antwerp in 1885 will form the basis of the discussions. The Congress is to take place on August 5 and 6. Chambers of commerce, societies of hygiene, scientific societies, naval authorities, &c., will be entitled to delegates, and scientists and specialists are invited to attend.

EUCALYPTOL BEFORE THE COURTS.—Dr. Roussel, of Geneva, and Dr. Morel, of Lyons, have been for some time past carrying on a rather acrimonious warfare in the columns of the *Journal de Médecine de Paris* respecting the value of eucalyptol in phthisis. Dr. Morel, deeming some of the articles to be libellous, summoned before the Tribunal Correctional both Dr. Roussel and Dr. Lutaud, the editor of the paper. The court has acquitted the former, and sentenced Dr. Lutaud to 16f. fine. Dr. Lutaud is one of the most bitter of Pasteur's enemies, and the *Journal* a receptacle for every violent abuse of the inoculator's doctrines and performances.

FRAUDULENT IMITATIONS OF PROPRIETARY ARTICLES.—The Tribunal of Commerce of the Seine has just rendered judgment in the case of M. Renard, proprietor of "Crosnier's Sirop Minéral Sulfureux," against two Paris pharmaciens, MM. Cause and Prellet, for selling an imitation of this old-established medicine. The court condemned the defendants to a fine of 3,000f. and costs; the wholesale druggists, MM. Carmouche and Naudaschu, who manufactured the spurious articles were also included in the condemnation. The court further ordered the insertion of its judgment in three newspapers at the joint expense of the defendants, the said insertions not to exceed the price of 500f., but the choice of the papers to be left to the plaintiff.

COUNTERFEITING PROPRIETARY ARTICLES.—Some time since Fournier & Cie., of Paris, the proprietors of Guyot's capsules, instituted a law suit against Sohét, of Belgium, for

selling counterfeits of their capsules. The Brussels court of appeals, whose jurisprudence is accepted as good precedent by French courts, finally gave a judgment in favour of Fournier & Cie. The court held that Guyot's trade-mark had been properly registered in Belgium; that the imitation complained of, although bearing the name of Thompson instead of Guyot, and differing in certain respects, is similar enough to mislead. The worst point against defendant was the printing on the label of a fictitious name, "Thibon, pharmacien à Paris," showing fraudulent intent. But as the sales of the counterfeit goods have not been large, Sohét was ordered to pay Fournier & Cie. only 150f. damages, and forbidden to again sell the imitation capsules.

A SITUATION OPEN AT ALGIERS.—Official notice has been given that on October 24, 1887, a public competition will be held for the situation of preparator of pharmacy and materia medica at the Algiers School of Medicine and Pharmacy. The candidates must enter their names before October 20, and present their certificates of attendance (*inscriptions*) to at least four quarterly terms of a school of pharmacy or medicine. It may be interesting to indicate the kind of positions offered to young French pharmacists competing upon an equal footing with medical students, and what are the attainments required. The following is the programme of the examination:—(1) A written composition on a pharmaceutical subject to be chosen by the examiners; time allowed, four hours. (2) Identification of thirty simple drugs, and a ten minutes' discussion on two of them, selected by the candidate. (3) A medicament to be either prepared or analysed; time, four hours. (4) Micrography applied to materia medica; time, two hours. The salary attached to the position is 1,875f. (75*l.*) a year, for a term of three years. The work is very light, and consists in making ready the substances and apparatus necessary to illustrate the professor's lectures. The preparator will have the privilege of acting at the same time as a hospital *interne*. As during his term of office the incumbent is given time to attend the lectures and to prepare for the examinations, with a very good chance to pass them successfully, it will be seen that the salary is not the chief inducement to compete for the position.

PHARMACEUTICAL PROSECUTIONS AT GRASSE.—The Correctional Tribunal of Grasse has just pronounced two judgments of great importance to pharmaciens. M. Comte fils of that city, carrying on the business of grocer and druggist, has been condemned to a fine of 500 francs, and 200 francs damages to the pharmaciens, for the sale of pharmaceutical products, he not being duly authorised by diploma. M. Granon, assistant to M. Comte and manager of the "Progress Pharmacy," prosecuted as an accomplice, was discharged. M. Tixador, the successor of Messrs. Comte and Granon, was also condemned, for the illegal practice of pharmacy, to 500 francs fine and 1 franc damages. The Tribunal also ordered the "Progress Pharmacy" to be immediately closed. M. Tixador, as a pharmacien of the second class, had the right to practise only in the department for which he had received his diploma, consequently he ought to have been authorised by the *École Supérieure de Marseille* and to have passed a new examination before commencing business in the Maritime Alps. M. Tixador, in his defence, asserted that he had been authorised by the prefect to carry on the pharmacy provisionally until the next session of the examinations, but the Tribunal decided that the prefect had no power to grant such authorisation, and therefore overruled the same. This probably will be the prelude to many similar prosecutions in the department, where there has been considerable laxity in carrying out the provisions of the law.

GERMAN PHARMACEUTICAL WORK.

MR. EUGEN DIETERICH, the head of one of the principal chemical manufacturing concerns in Germany, publishes an annual review dealing chiefly with matters arising in the manufacture of the specialities of his firm. Many of these are of interest to pharmacists and the chemical trade generally. Hitherto the reports have contained matters of commercial and of scientific interest without distinction; but from this year the two branches are separated, and a report will

be issued of exclusive scientific interest, called the "Helfenberger Annalen." The following paragraphs are extracted from the first pamphlet bearing that title:—

Adeps.—In a previous report the author gave some particulars regarding the amount of free fatty acids existing in lard, and the conclusion which he came to was that it is impossible to obtain lard absolutely free from acidity. This conclusion has been amply verified in the course of the year. Samples of lard were taken immediately after rinding, and it was found that 1 gramme of the fat required from 0.10 to 0.15 c.c. of decinormal alkali for its neutralisation, which is equivalent to from 0.00282 to 0.00423 per cent. of free acid (calculated as oleic acid). The melting-point of the lard was 36° to 38° C., and the specific gravity 0.934 to 0.938.

Cerasin.—The firm use large quantities of wax in the manufacture of paper, and in the *Annalen* there are some interesting notes, to which we shall afterwards refer. In a note on cerasin, which is a wax substitute, it is stated that the quality of this substance is judged by its specific gravity, melting-point, and odour. Twenty samples examined in the course of the year showed the specific gravity to vary from 0.914 to 0.922, and melting-point 69° to 76° C. It is somewhat difficult to judge the odour. The best method is to boil a portion of the sample with water in a porcelain dish, whereby any odour is immediately revealed.

Essences (Concentrated).—The amount of essential oils in aromatic waters is not known, although it is evident that it must vary according to the quantity of aromatic material used. The same is the case with concentrated essences, such as perfumes; and as the value of these is proportionate to the amount of essential oil which they contain, it is obviously desirable to have a method for estimating the amount of oil. The author has tried Hübl's iodine method, which he has used for years in the estimation of fixed oils and fats. It has lately (*Arch. d. Phar.*, 1885, 848) been recommended by Berenthin for the estimation of essential oils. The results of the experiments are quite satisfactory, and it has been found that the strength of concentrated essences can be exactly regulated. Full particulars are promised.

Mel.—The author's experience with Lentz's honey test has confirmed its reliability. Particulars are given of twenty parcels of German honey, and four of American, which were examined as received and after clarification. The specific gravity was ascertained by dissolving 1 part of honey in 2 parts of distilled water (both by weight). The specific gravities of the solutions were found to be (German) 1.1110 and 1.1210, (American) 1.1117 and 1.1145. The optical (polarimetric) test showed little difference between the two kinds. The smallest deviation of the polarised ray was 6° 2', and the largest 8° 8'. The amount of free acid was found to vary according to the extent of fermentation, but there was no difference observable between the American and the German in this respect. Ten-gramme portions required from 1.9 to 4.2 c.c. of $\frac{1}{10000}$ potash solution for neutralisation. Clarified honey also contained free acid. On the whole the quality of commercial honey was found to be good, although in some cases fermentation had set in to an undesirable extent.

Oleum Theobromæ.—Cocoa butter is generally considered to be a fat almost devoid of free acids, but the author finds that this is not exactly so. Three fresh samples were examined, and were found to take (1) 0.06 c.c., (2) 0.16 c.c., and (3) 0.12 c.c. of decinormal alkali per gramme. These samples were kept in glass jars covered with parchment paper, and at the end of three months required (1) 0.15, (2) 0.30, and (3) 0.20. At the end of six months acidity had further advanced, and the samples required (1) 0.22, (2) 0.38, and (3) 0.30 of decinormal alkali respectively.

Tamarind Pulp.—Following a previous statement regarding the amount of free acid (reckoned as tartaric acid) in tamarind pulp, as estimated by normal ammonia solution, the author states that the value of tamarinds may be judged by the amount of free acid which they contain. Crude tamarinds show 12.75 per cent. of tartaric acid, and the prepared article 9.99 per cent. of the acid on the average. The standard which he recommends is 12 per cent. for the crude tamarinds.

CONTINENTAL NOTES.

THE forty-third general assembly of the Swiss Society of Pharmacists was held at Thun this week. There was a reception of the members on Tuesday evening, and on Wednesday and Thursday they met to transact business, the greater part of which, however, was in the pursuit of pleasure.

A NEW PREVENTIVE OF FLIES.—It is stated that oil of bays (*huile de laurier*) is extensively used in Switzerland by butchers to keep their shops free from flies, and that after a coat of this oil has been applied to the walls none of these troublesome pests venture to put in an appearance. This remedy has also been tried and found effectual in the south of France in preserving gilt frames, chandeliers, &c., from becoming soiled. It is even remarked that flies soon avoid the rooms where this application has been employed.

SULPHIDE OF CARBON IN NEURALGIA.—According to the *Italian Medical Gazette* this chemical has been employed with success in the treatment of neuralgia. Fifteen to twenty drops are applied on cotton-wool to the painful part and covered with a piece of dry cotton. The remedy, if not always a cure, at all times procures great relief; the pain produced by the application itself is only temporary.

ANOTHER NEURALGIC REMEDY.—The following application has lately been prescribed for the relief of neuralgic pains:—Hydrate chloral, $3\frac{1}{2}$ parts; camphor, 3 parts; menthol, 1 part. Triturate together until liquid, and preserve in a well-stoppered actinic bottle. To be painted over the affected parts with a camel's-hair brush.

TREATMENT OF CHILBLAINS.—Dr. Vigouroux, in the *Journal de la Santé*, recommends the following ointment for unbroken chilblains:—Hyd. præcip. alb., 0.50 centig.; chloroform, 0.50 centig.; cold cream, 30 grammes. For broken chilblains:—Calc. chlorinat., 2 grammes; calc. borat., 3 grammes. Adipis 30. At the same time an internal treatment of iron tonics and cod-liver oil should be pursued.

FIRE AT A GRASSE ESSENTIAL OIL DISTILLERY.—On June 5 a fire broke out in the large essential oil works of Messrs. Bertrand Frères at Grasse, which destroyed the roof of the packing-room and a quantity of goods stored in that apartment, causing damage to the extent of about 2400., which is completely covered by insurance. It is supposed to have been caused by the steam-boiler in the packing-room having been in an overheated condition when the works closed for the day and setting fire to a quantity of straw stored in its vicinity.

ROUMANIAN TARTAR.—Up to the present time the wine-les so largely produced both in Moldavia and Lower Walachia have, together with the marc from the wine-presses, merely been employed for the preparation of *raki*, a coarse, fiery kind of spirit we will not dignify by the name of "brandy," although sometimes it is sold under that title. The whole of the bitartrate of potassium has thus invariably been thrown away; but we understand that at last attention is being called to the enormous waste thus ensuing, and in consequence it is probable that systematic attempts will shortly be made to extract the tartaric acid, or at least to separate the tartar and prepare it for sale, as is done elsewhere.

AERATED WATERS IN TURKEY.—The consumption of aerated waters in Constantinople has increased enormously of late, and there is every prospect that all over the Ottoman Empire aerated non-alcoholic beverages will become quite popular. Recognising the possible dangers of imperfect machinery, his Excellency Blacque Bey, President of the VI. Municipal Division, recently appointed a commission of inquiry. This commission has visited six factories of aerated waters, namely, those of Mr. Leon Chor, Rue Kara-Oghlan, at Galata; of Mr. Baichel, Rue Bulbul, Galata; of Mr. Alexandre, Rue Gerah Pasha, Galata; of Mr. Hristo, Rue Linardi, Galata; of Mr. Tcholkadon, Rue Yeni-Sheir, Galata, and a factory at Pancaldi. The result of this inspection is that it was found that distilled water was used in the preparation of the beverages, but the vessels containing the liquids not being of block tin, it was advised that they should be re-tinned from time to time. Samples of the materials employed were taken, and have been sent to the Imperial School of Medicine for analysis.



THE "ROSS" LIGHT.

A NEW system of oil lighting is at present on trial in London, and is worth the attention of those who burn oil or who pay too much for their gas. The purpose of the system is to supply light on the same principle as gas is supplied at the cheap rate possible with oil as the illuminating agent. Ordinary gas brackets or pendants may be used, the gas burner and tap being replaced by a cylindrical tube, in which the wick is placed. The oil is supplied from a main reservoir to the burners by means of pipes, ordinary gas-pipes being utilised for this purpose. The oil is so placed that the supply is at a constant level, so that there is no possibility of leakage at the burners. So far as the oil supply is concerned, it is, therefore, perfectly automatic. The usefulness of the "Ross" patent does not consist solely in these arrangements, however. It is well known that oil lamps do not burn brightly without a current of air, which is generally induced by a chimney. In the "Ross" system there is no chimney, but air is supplied to the flame from a meter by pipes exactly in the same manner as gas is supplied. The meter contains compressed air, and this rushes to each flame with considerable force, and changes the dull, smoky flame to one of brilliant whiteness. The light resembles an ordinary gas flame, but is much pleasanter to the eyes. Mr. Boverton Redwood, who has reported upon the system, says that as regards safety the burner remains remarkably cool, and the oil in the small chamber beneath the burner does not, even after six hours' burning, acquire a temperature more than 16° Fahr. higher than that of the surrounding air; the system is thoroughly efficient and economical. The company, we understand, propose to fix up fittings where desired on the three years' system, and they claim that the cost of the fittings and supply of oil for that period will be less than the sum of the gas bills. This is based on such a calculation as the following:—30,000 feet of gas, at 4s. per 1,000, costs 6*l.*; oil at 5*d.* per gallon sufficient to give the same amount of light costs 1*l.* 7*s.* 6*d.*—that is, 2½ gallons of oil give a 16-candle power light for 200 hours, which represents the capabilities of 1,000 feet of gas. The company have offices at 20 Bucklersbury, Queen Victoria Street, E.C., where the light may be seen.

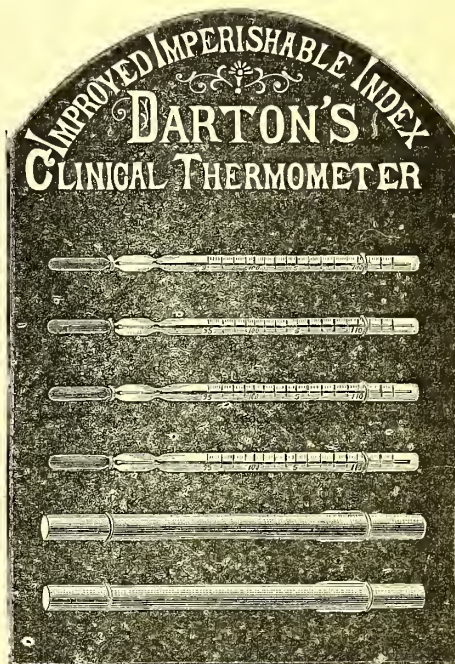
PAPER BOTTLES.

It is a well-known fact that the Japanese make much more out of paper than Europeans do, but we are rapidly making headway. It is not long since paper bricks were introduced, and quite recently paper wheels for locomotives took the place of the heavier metal ones on some of the railways of the United States. Now the material is to be adapted for the production of bottles, jars, boxes, &c., which are at present made of glass, earthenware, metal, and wood. The idea originated with Mr. L. H. Thomas, an American gentleman, and the bottles have now been in use in the United States for a considerable time. We have had the opportunity of inspecting a number of the bottles, &c., and of putting them to a practical test. The circular bottles are made in a much similar fashion to pill boxes, that is, a large cylinder of paper is first made, then cut into pieces of the required length; the bottom, top, and neck are then placed in; and, finally, the inside is coated with a glazing substance which is unacted upon by acids and alcohol. The bottles may, however, be made

of any shape, and, it is stated, at a lower cost than similar vessels of glass, earthenware, tin, &c. Those that we have examined appear to be well adapted for such fluids and solids as annatto, furniture cream, ink, blacking, violet powder, and all other similar powders—indeed, anything short of prescription medicines might be sent out in them. They are specially suitable for the carriage of strong acids. The bottles are practically unbreakable, do not leak, and are handsomely finished and decorated on the exterior. A company (The Paper Bottle Company) is in course of formation to acquire the patent rights for the United Kingdom. The address of this company is 37 Walbrook, E.C.

CLINICAL THERMOMETERS ON CARDS.

MESSRS. F. DARTON & Co. have got out, especially for their pharmaceutical customers, cards carrying on each half-a-dozen of their improved index clinical thermometers. These milk-white instruments show well on the chocolate cards, and the whole being packed in a neat box are kept



quite safely. Clinical thermometers are being bought now by other than medical customers, and as they still yield a good profit the trade should be encouraged.

Messrs F. Darton & Co. are also supplying on cards sets of good pocket glass magnifiers for retail sale at prices varying from 6*d.* to 2*s.* each. A sketch of these appears in Messrs. Darton's advertisement. Chemists cultivating an optical business will find one of these cards assist it.

SELF-FIXING LEVER TIN.

MESSRS. B. NOAKES & Co., of Duckley Road, Bermondsey, S.E., have recently patented an improved tin which they are now introducing to the trade. The ring top of this tin is grooved in the centre, so that a cross-section presents the form of a W. This particular form has been found to give the greatest strength, and, however roughly the tin may be used, the top is likely to be the last survivor. As will be seen from the engraving the lid is an insertion one, and is provided with

a broad, strong edge, which offers a solid bed to the lever, and so renders opening extremely easy. The tins are strongly



made and well finished. They are not liable to leakage, and are made in various sizes, suitable for the many purposes for which they are adapted.

ZONWEISS AND ITS CLOCK.

ZONWEISS is the name given to a creamy white tooth-paste manufactured by Messrs. Johnson & Johnson, of New York, and already introduced with much success into the United States. It is put up neatly in wide-mouth glass bottles, and is supplied with a celluloid spoon, which is used to apply the paste to the brush. Its peculiar characteristics are its solubility and its permanence. It is declared that it will neither decompose nor desiccate on exposure to the air. These properties are obvious advantages, and it may be added that Zonweiss is of a very agreeable odour and flavour. As an inducement to chemists to introduce it the proprietors offer to give, with an order of three dozen, a clock for the window, which shows on its face the figure of a young lady brushing her teeth, the movements of her arm and tooth-brush continuing without rewinding for thirty days. The clock and the young lady will no doubt acquire popularity wherever introduced. Messrs. Barclay & Sons, of Farringdon Street, are agents in this country for Messrs. Johnson & Johnson.

A JUBILEE WATCH.

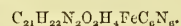
CHEMISTS have an opportunity of securing a watch as well as the clock above mentioned. This is offered by Messrs. Hockin, Wilson & Co., of Duke Street, Manchester Square, to all purchasers of one gross of Harvey's Toothache Pencils. This generosity is another development of Jubileism.

CAPE DRUGS.—Little is known of the medicinal agents employed by the natives of South Africa. The bulb of the *ieukbol* (*Drimys ciliaris*), which resembles squill, is used as an emetic, expectorant, and diuretic; its juice is highly irritating in contact with the skin, hence the local name, meaning "itch-bulb." The prominent native narcotic is tobacco, which is extensively planted. The manner of preparing it, however, must in a great measure destroy its flavour; it is mashed together in a hollow piece of wood, by means of a heavy pole, into little round balls of the size of an orange, which, when dry, are broken into smaller pieces. The leaves of a composite plant, *Parchonanthus camphoratus*, when dried, are smoked by the Hottentots and Bushmen instead of tobacco, exhibiting slight narcotic effects; in the form of infusion they promote perspiration, and are said to be useful in spasmodic asthma. The beautiful-flowered labiate plant, *Leonotus leonurus*, is abundant at the Cape, and is also smoked by the Hottentots instead of tobacco, with similar narcotic symptoms to the preceding. Near Delagoa Bay the natives have a curious custom of drawing snuff up their nostrils through a long hollow bone from a bird's wing.

VOLUMETRIC ESTIMATION OF STRYCHNINE AND BRUCINE.

MESSRS. G. HOLST AND H. BECKURTS, in a communication from the pharmaceutical laboratory of the High School of Brunswick to *Pharmaceutische Centralhalle* (vol. xxviii. p. 219), propose a method for the estimation of strychnine and brucine which is based upon the methods of Messrs. Dunstan and Short and Mr. O. Schweissinger. The former chemists have shown that when the two alkaloids in acidulous aqueous solution are treated with a solution of potassium ferrocyanide the strychnine only is precipitated as an insoluble ferrocyanide, which, however, is partially soluble in solutions of the alkaline hydrates. Their process for the separation of strychnine from brucine is based upon the solubility of brucine ferrocyanide in water acidulated with sulphuric acid. Schweissinger's quantitative method is based on the saturating power of the alkaloids, the titrating solution which he uses being centinormal hydrochloric acid. This is added in excess, the solution being brought back to neutrality by the addition of centinormal soda solution.

Holst and Beckurts propose to add a standard solution of potassium ferrocyanide to a solution of the mixed alkaloids in hydrochloric acid and water, the strength of the alkaloidal solution being from 0.5 to 1 per cent. The ferrocyanide solution may be of the same strength, but it would be preferable in practice to adjust it so that a certain volume of it—say, 1 c.c.—should represent an equivalent of strychnine ($C_{21}H_{22}N_2O_2 = 334$). Thus 1 c.c. of solution containing 4.22 grammes of potassium ferrocyanide ($K_4FeC_6N_6 \cdot 3H_2O = 422$) in a litre would be equivalent to 0.00334 gramme of strychnine. The ferrocyanide solution is added to the alkaloidal solution until a filtered drop of the mixture strikes a blue colour upon ferric chloride paper. The formula of strychnine ferrocyanide is—



The accuracy of the method in estimating strychnine in a mixture of the alkaloid with brucine is seen from the following examples.

(1) A mixture of strychnine 0.145 gramme and brucine 0.036 gramme was dissolved in water acidulated with hydrochloric acid. It required for precipitation, and until the filtered mixture gave a blue colour with ferric chloride paper, 36.1 c.c. of ferrocyanide solution (1 c.c. = 0.005184 $K_4FeC_6N_6 \cdot 3H_2O$)—

$$\frac{0.005184 \times 36.1 \times 334}{422} = 0.148.$$

(2) Strychnine 0.0208 gramme and brucine 0.0052 gramme required 5.1 c.c. of the ferrocyanide solution, which is equivalent to 0.02095 of strychnine.

It is evident, therefore, that the process gives results over but sufficiently near the mark for all practical purposes.

The brucine in a mixture is estimated indirectly by means of the centinormal acid solution, cochineal tincture, which allows of accurate observation of the end-point by gaslight, being used as an indicator. The following note shows the method of working and the accuracy of the process.

A mixture of strychnine 0.1 gramme and brucine 0.05 gramme was dissolved in 50 c.c. of the standard acid solution, and it required 9.05 c.c. of standard soda solution for neutralisation, so that 40.95 of the acid were required to combine with the alkaloids. The amount of strychnine in this mixture having been determined as 0.10175 gramme by the ferrocyanide method (after adding a little hydrochloric acid to the neutralised solution and evaporating it to 10 c.c.), it was found that the strychnine had used up 30.46 c.c. of the standard acid, leaving 10.49 c.c. for the brucine.

$$1 \text{ c.c. } \frac{n}{100} \text{ HCl} = 0.00466 \text{ brucine} \times 10.49 = 0.04915.$$

We therefore have—

	Quantities taken	Found
Strychnine	0.1	0.1017
Brucine	0.05	0.04915

The method is applicable to the estimation of the alkaloids in preparations of *nux vomica*, after the removal of extractive matter by the usual means, precipitation of the alkaloids, and dissolving these in excess of standard hydrochloric acid.

Veterinary Treatment.

FOOT-ROT.

THIS troublesome disease of the foot has received a vast amount of inquiry from agriculturists, and a great deal of study at the hands and, we might add, the microscopes of scientific pathologists. All sorts of experiments have been tried upon sheep to prove whether foot-rot is infectious or contagious, or both or neither, and the best authorities are still divided. The reason may be easily stated, namely, that matter from a diseased foot will sometimes reproduce the complaint in a healthy one, while at other times it fails; and again, a piece of healthy hoof introduced into the tender part of another healthy hoof will bring about inflammation and results almost, if not quite, identical with those of foot-rot. There is a characteristic discharge and odour of sulphuretted hydrogen in decomposing horn, no matter how it is brought about, and the products of inflammation by the introduction of a foreign body are much the same as those superinduced by foetid matter from a diseased foot.

Among believers in the contagiousness of the disease are such eminent men as Dr. Fleming, F.R.C.V.S., Choumontel, Randall, Reynall, and Hogg, the Ettrick Shepherd, author of the prize essay communicated to the Highland and Agricultural Society. Professor Brown, the chief veterinary adviser of the Privy Council, and the late Professor Dick held the opposite opinion. It may be that in certain seasons and in particular conditions of the soil the disease is contagious, and that the observations of any one writer do not extend over sufficient time or space to make his conclusions reliable.

It is generally believed among the unscientific, and particularly among the unfortunate sheepowners of low-lying land that it is contagious, and that the contagion remains in the soil of certain pastures for years. This argument derives much force from the fact that removal of sheep from such pastures for two or three seasons will give comparative immunity from the disease for a considerable time.

The treatment of foot-rot depends somewhat upon circumstances. A method suitable for a man with a few ewes in an enclosure is not practicable for a laird with thousands of acres and only about three bites to the acre.

If the sheep are not too many and too widely scattered, each animal should be caught and turned, and all the "muck" cleared out between the digits—or claws, as they are called in the South of England. To thoroughly cleanse the foot is of the first importance, and those foot-rot preparations which have attained the greatest celebrity owe much of their good fortune to the painstaking shepherds who first gave them a fair chance to get at the seat of the disease. All the dead and foetid horn should be carefully pared away with a good knife, and the dressing used will generally effect more permanent good if a piece of tow be introduced between the claws.

Nearly all foot-rot lotions and ointments owe their remedial qualities to caustics, such as cupri sulph., alum. nit., cupri acet., hyd. bichlor., zinci chlor., antim. chlor., acid. nitric., &c.

Any of the preparations the formulæ for which are subjoined may be recommended as likely to cure, or at least benefit, animals suffering from foot-rot; but the great secret of success and reputation is for the practitioner himself to apply his remedy as well as prepare it.

The most effectual treatment in our hands has been to dress the bad places with the following lotion:—

Zinci chlor.	..	..	..	..	..	3j.
Spt. vini meth.	..	..	..	..	..	3ij.
Aq. ad	..	..	..	..	..	3j.

and then dip the foot right over the top in a mixture of

Acid. carbol.	..	..	..	..	..	3j.
Ol. sesame	..	..	..	..	..	3iiss.

and finish off with a piece of twisted tow between the claws, as before suggested. Two thorough applications of these remedies, omitting the tow on the last occasion, will generally prove effectual unless the disease is very far advanced, when it may be necessary to repeat the dressings.

Professor Williams recommends for mild cases—

Tinct. ferri perchlor.	..	..	..	..	..	P. æ.
Aqua	..	..	..	..	..	..

and for advanced cases, with fungoid growths, a careful dressing with acid. nitric., applied "sparingly" with a feather.

Carbolic acid with which to dress these fungoids is even better than nitric, as it does not produce the same kind of decomposition of hoof-structure, and, while any part of it remains, is an antiseptic with considerable advantages over nitric acid.

Professor Williams also recommends brushing over the feet with gutta-percha or quick-drying varnish, after using the dressings, but we do not know of the practice having been adopted.

In all cases that have arrived at the fungoid stage some active caustic is necessary before repair can take place. Of all the remedies employed the chlorides of antimony and zinc give the best results, though not always the quickest. Granulation follows sooner upon cauterisation with nitrate of silver, and more slowly after chloride of zinc than with any other agents. Hence in light cases the more expensive agent may be used, but in others the process of repair must be retarded until the morbid fungus is destroyed.

Where a large number of sheep are to be treated, the expense of handling makes it necessary to resort to wholesale methods, so to speak, among the most successful of which is driving through a narrow gate over powdered quicklime. In this way the sheep dress their own feet, and the more crowding and trampling to get through the better is the dressing applied. This was a favourite remedy, if not an original suggestion, of Professor Symonds, late Principal of the Royal Veterinary College.

Another plan, first adopted by the Messrs. Archibald, was that of driving the sheep through a trough made expressly for the purpose, and with a lid and padlock to prevent it being misused afterwards. The remedy employed was—

Acid. arseniosi	..	..	..	..	..	3xvj.
Soda carb.	..	..	..	..	..	3xvj.
Aque bullientis	..	..	..	..	..	Cv.

With this solution of arseniate of soda an inch deep at the bottom of the trough the feet would be all fairly wetted without carrying away sufficient to render the pasture dangerous.

Of late years carbolic and salicylic acids have been in high repute. Carbolic acid as a lotion with glycerine has objections; the ointment is much more effectual. We pointed out last year that carbolic sheep-dips leave a sweet attractive matter for flies, and, although this does not apply to so great an extent in dressing the feet, yet the glycerine, with which almost any carbolic lotion must be combined, seems to form a varnish or protection and hinder the action of the acid. The following is an excellent ointment for foot-rot where the flock must needs be treated all alike—

Acid. carbolic.	..	..	..	..	..	3j.
Zinci ox.	..	..	..	..	..	3j.
Ol. picis	..	..	..	..	..	3j.
Adipis ad	..	..	..	..	..	3j.

Where a large quantity is required any fat may be used in the above instead of lard; discoloured palm oil or innocent pomades which have lost their colour in the windows can thus be got rid of profitably. In almost every hoof disease tar and its preparations do good service. A good ointment of the kind is the following:—

Cupri sulph.	..	..	..	..	..	3j.
Alum exsic.	..	..	..	..	..	3j.
Picis liquidæ	..	..	..	..	..	3iv.
Adipis	..	..	..	..	..	3iv.
M. Ft. ungt.	..	..	..	..	..	..

Nearly all the recipes given in Beasley's "Druggist's Receipt-book" are good and well tried, but the purely caustic treatment has the disadvantage of drying and shrinking the foot too much.

Having tried a great variety of remedies, we are of opinion that the carbolic preparation with tar and grease, or the copper, alum, tar, and grease mixtures, are the best among the ointments and for general use, as they arrest the disease while retaining the natural moisture and elasticity of the horny structures. To complete the cure it is very desirable to remove the sheep to high ground.

"SANITAS."

CAUTION.—The fancy word "SANITAS" is our Registered Trade Mark.

THE BEST DISINFECTANT.

Non-Poisonous. Colourless. Gives no Stain. Fragrant.

Fluids; Oil; Emulsion; Insecticide; Powder; Sheep Dip; Hard, Soft, Animal, Brown Windsor, and Toilet Soaps; Soap Powder; "Sanitas" Disinfecting Jelly; Veterinary Ointment; Tooth Powder; Toilet Powder; Toilet Fluid; Furniture Cream Antiseptic Gauze; Fumigators.

GOLD MEDALS, Calcutta, 1884, and Paris, 1885.

Liberal Terms, New Show Cards and Bills to the Trade.

Sole Manufacturers, The "Sanitas" Co., Limited, Bethnal Green, E.
C. T. KINGZETT, F.I.C., F.C.S., Managing Director.

Friedrichshall.

THE WELL-KNOWN APERIENT MINERAL WATER.

IMPORTANT NOTICE.

By reason of an improved method of caption, by which dilution is avoided, FRIEDRICHSHALL WATER will be found now to be of CONSIDERABLY GREATER STRENGTH and EFFICACY than heretofore.

The ordinary dose is a large wineglassful (4 ounces) taken fasting. Most efficacious and more acceptable to the palate when heated or mixed with an equal quantity of very hot water.

"The most suitable aperient for prolonged use."

Professor SEEGEN.

Of all Chemists and Mineral Water Dealers. [2]

WOODHALL SPA

BROMO IODINE MINERAL WATER.

The strongest known Iodine Water in the World.

This remarkable Spa has been purchased by a Syndicate of gentlemen who have determined to make more widely known the extraordinary curative powers of this spring, which contains more Iodine and Bromine than any spring in Europe—"And, we may safely add, in any part of the World."—*Dr. Cuffe, for many years late resident Physician at Woodhall Spa.*

An analysis of the water having been made in November, 1886, by Professor Wanklyn, M.R.C.S., corresponding member of the Royal Bavarian Academy of Sciences, Professor of Chemistry, a very important discovery has been made, viz., the presence of Free or Elementary Iodine.

Dr. Wanklyn says—"So far as I am aware, this is the first instance in which free Iodine has been found in appreciable quantity in a natural water. For many years the Woodhall Spa has been celebrated as a valuable remedy in skin diseases. The fact that it is a solution of free Iodine is interesting in this connection, and well worthy of the attention of the medical profession."

The Woodhall Bromo Iodine Water is now being bottled at the Spring by the Sole Agents, BROULEY & CO., Chemists, 233 High Street, Lincoln, 5 & 6 The Grove, Buxton, and at Woodhall. All communications to be addressed to them at the Spa, Woodhall, Horncastle.

POWERFUL! HANDY!! SAFE!!!

CONDY'S POWDER

In Perforated Tins — Retail 1-lb. Tin, 1s.

Trade Price, 8s. per dozen, less usual discount. Through all Wholesale Houses.

CONDY & MITCHELL (Ld.), 67 & 68 Turnmill St., London, E.C.

SOLE PROPRIETORS OF CONDY'S FLUID

To Advertisers
CATALOGUES & PRICE LISTS ILLUSTRATED
Advert. Blocks Engraved in Best Style
at Moderate Cost + + + + + APPLY TO
W. BARKER & SON, 172, STRAND, LONDON.

ELLIMAN'S UNIVERSAL EMBROCATION
FOR
RHEUMATISM LUMBAGO.
SPRAINS, BRUISES, STIFFNESS.
SORE THROAT FROM COLD.
CHEST COLDS.
The Safest, Quickest, most
certain remedy. $\frac{1}{12}$
Prepared only by
ELLIMAN, SONS & CO.
SLOUGH, ENGLAND.

SILICATED CARBON PATENT MOVABLE BLOCK FILTERS.

SEE ADVERTISEMENT, PAGE 12.

EDITORIAL NOTES.

VOLUME XXX.

THE present number completes the first volume of THE CHEMIST AND DRUGGIST for the current year, and is the thirtieth of the series, which was commenced in 1859. There are still on our list a large number of original subscribers who may recall the form in which this journal was first published. The first volume was an octavo book of 296 pages, the information contained being of the same varied scientific, technical, and purely trade character, which has been maintained ever since. The aim has always been kept in view of providing information directly useful to chemists and druggists in their business, and keeping them well posted in all matters pertaining to the drug trade. The growth in bulk of our volumes year by year sufficiently proves that our efforts have been appreciated, while the change from monthly to weekly publication has brought us more directly, if possible into touch with the trade. Our work, estimated in pages as well as by an increased staff, has been exactly doubled. The last yearly volume contained 748 pages; the present one covering a period of six months, contains 786 pages, exclusive of the index which accompanies this number. Since the beginning of last year there have been several matters closely affecting the trade interests of chemists which have been thoroughly discussed in our columns by the trade. Among these, have been Sir John Lubbock's Early Closing Bill, the Pharmacy Acts Amendment Bill, and the position of the Chemists and Druggists' Trade Association. The first of these has for the moment almost dropped out of notice, and although it has won many friends it has certainly aroused too much opposition to give it any chance of passing through Parliament at present, if it should come forward at all. The Pharmacy Acts Amendment Bill seems to be looked upon with favour, or at least without disfavour, in Government departments, but its chance of passing this session depends on Dr. Farquharson getting one of those pre-midnight lucky chances which not too frequently occur to the private legislator. The Trade Association is to struggle on for another year on the old lines, but it seems pretty clear that either the Association or the "old lines" must cease to exist at the end of that period.

The index to this volume has been made as complete as possible, and now fills nine pages instead of seven, the increase being due in a large measure to the greater number of dispensing, practical, and scientific notes, formulæ, and notes on British and foreign commerce relating to the chemical and drug trades. An index is useless if it is not consulted, or if it is not bound up with the numbers to which it refers. We therefore advise all subscribers to send the volume to the binder without delay. Our reading cases, which are now in use by so many in the drug trade, have kept the numbers intact so far, and the binder can do the rest.

THE PEPPER ADULTERATIONS.

A DISTINCT advance in the pepper adulteration question was made at the Lancaster Police Court on the 16th inst., when a grocer of the town named Wilson was charged with having sold pepper containing, according to the public analyst, 15 per cent. of olive stones, starchy matter, and other foreign vegetable matter. The interesting point about this case was that it brought into court representatives of the grinders and of the wholesale dealers, and that these admitted the adulteration, and admitted also that the retailer was quite innocent of this adulteration. It is quite evident that this pepper adulteration business is carried on on an extensive scale, and is yielding magnificent profits to somebody. The retailers who pay the fines are not the people who are raking in the profits, so that the evidence of the wholesale representatives was of particular interest. The defendant in the Lancaster case had obtained his pepper from Messrs. Rishton, Cooper & Dunderdale, of Liverpool, and Mr. Cooper, of that firm, was in court at the trial, and, it was understood, was ready to testify that his firm had sold the pepper as they received it. But to save time this course was rendered needless by an arrangement come to that Mr. Thomas Vacher Low, managing director for Messrs. White, Palmer & Co. (Limited), who supplied the pepper to Messrs. Rishton, Cooper & Dunderdale, should explain matters. Mr. Low said his firm supplied the pepper and warranted it. But he was now willing to admit that the pepper complained of was a part of what they had supplied, and that the analyst's certificate concerning it was more or less accurate. Mr. Low then made the following important statement:—

I think we are the largest dealers in pepper in the United Kingdom, and last year, owing to a fire at a large grinder's in London, we had a most extraordinary demand for pepper, which our mills could not supply, and we were compelled to buy as our only way to meet the demand. In the same week in which I sent out the barrels of pepper which have been already mentioned, we delivered no less than thirty tons of ground pepper. This was a great demand, and we were obliged during that period to buy ground pepper, which we have never done before, and shall never do again. We got it through brokers, and it was guaranteed as genuine. We took every precaution to have it tested, and we sent samples to Somerset House, and it was declared to be pure. We have since found that the pepper was adulterated, and I am glad of an opportunity to make this statement publicly and before the world, so as to clear my position. We never adulterated any pepper ourselves, and we should never have thought of buying pepper had it not been that we were unable to supply the demand.

Mr. Low subsequently made the following further explanation:—

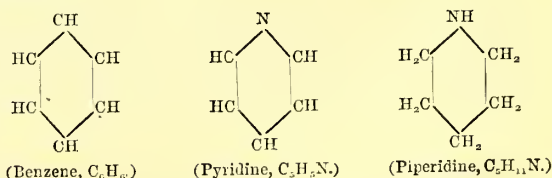
We are a public company in a very large way of business. At least three-fourths of our business is in pepper. There have been statements going about that the persons who make this adulteration must realise enormous profits, but we certainly do not make the profits. I have our printed and

audited balance-sheet in my pocket. We paid no dividend last year; we carried forward a debit balance; and our gross profit on the pepper turnover was less than 1 per cent., so that we do not make any undue profit.

Mr. Low therefore knows where the adulterated pepper comes from, and could no doubt give some material assistance to a public official, who should be authorised to search for it. Is there nobody whose rightful business this becomes? It would surely be a better mode of procedure than to multiply indefinitely the prosecutions of practically innocent retailers.

THE SYNTHESIS OF THE ALKALOIDS.

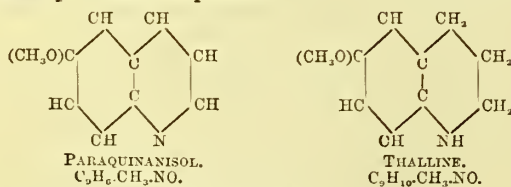
In the note on the constitution of alkaloids in a recent issue we referred more especially to what we may term the less highly organised bases. Most of our knowledge, as we now have it, regarding such alkaloids as muscarine and choline, has been acquired during the past dozen years. This is not exactly the case with the higher groups of alkaloids—the derivatives of pyridine and quinoline. It so happens that the oldest alkaloids are in these groups. They have, almost necessarily, been subjected to a longer period of attack, but the extreme complexity of their molecules, and the infinite number of differing parts or substances into which these molecules split up when attacked, are the main cause of the small progress which has been made in this department. All, however, yield one or more bodies or bases in common, while each has its distinctive and peculiar decomposition product. For example, cinchonine and quinine both afford the basic quinoline under certain conditions, but on oxidation of cinchonine, an acid—cinchoninic acid ($C_{10}H_7NO_2$)—is the principal body formed, while in the case of quinine, quininic acid ($C_{10}H_9NO_4$) is the principal product. The acquirement through experiment of such knowledge as that is, however, so much gained. We find, indeed, that obstacles are gradually being cleared away, and the actual synthetic formation of such alkaloids as piperidine and coniine is a proof that the chemist is on the right track in studying the decomposition products, and building up from them, theoretically, bodies of similar constitution. It is noteworthy that the synthesis of the alkaloids has led to some of the most brilliant discoveries of the present day, especially in the discovery of dye-stuffs. Many of our quinine substitutes, such as thalline, for example, are the result of endeavours to make quinine artificially. If there is romance in chemistry at all it is to be found certainly in this branch of it, which is generally considered the most uninteresting and unfathomable. We may take piperidine and coniine as examples of the methods followed in alkaloidal synthesis; these are pyridine bases. Pyridine has the formula C_5H_5N , that is, it is benzene with CH replaced by N. The relationship between these and piperidine is seen in the following formulæ:—



If we introduce six hydrogen atoms into pyridine we convert it into piperidine. Ladenburg succeeded in so hydrogenising pyridine by acting upon an alcoholic solution with sodium, and from the base which was formed he obtained a platinum-chloride which agreed with the similar double salt of

piperidine. He has also prepared it from trimethyl cyanide by the action of sodium. Pentamethylnediamine is the principal intermediary product, and this gives piperidine when distilled with superheated steam. He has proved that the alkaloid so obtained is identical with that prepared from piperine. Another curious point which Ladenburg has lately proved is that cadaverine (one of the products of flesh decomposition) is identical with pentamethylnediamine, and that its imine is the same as piperidine. The synthesis of coniine by Ladenburg is one of the most notable achievements of modern chemistry. He at first supposed that this alkaloid was piperidine in which two hydrogen atoms were replaced by the isopropyl radicle (C_3H_7), its formula being taken as $C_5H_9(C_3H_7)_2NH$. But he has since changed his view, as will be seen from what follows. In its synthesis 1,000 grammes of picoline were first converted into alpha-picoline, 380 grammes being obtained. This was heated with paraldehyde, whereby it was converted into allylpyridine (48 grammes), and this by reduction with sodium yielded alpha-propylpyridine, a body in almost every respect identical with coniine. The more important difference was its optical inactivity, but he succeeded in splitting up a solution of the acid tartrate of the base by means of *Penicillium glaucum*. Crystals separated which had a dextro-rotatory power of $[\alpha]_D = 31^\circ 87'$ as compared with the $[\alpha]_D = 13^\circ 79'$ of natural coniine. This brief account conveys but a faint idea of the difficulties which were encountered in these researches. Optical methods of examination have proved of great value, and are destined to play an important part in such work.

Amongst the most complex alkaloids are those of the quinine group. As yet chemists have got no further with these than the oxidation products; but the study has afforded us several new antipyretics and many interesting facts. It has been found, for example, that artificial quinine-like bodies, which fluoresce and give the green colour with chlorine water and ammonia, have antipyretic properties like quinine, but their secondary effects are so pernicious as to prevent their use. If, however, such bodies are hydrogenised or methylated they lose their fluorescing property, do not give the green colour, and their secondary effects are removed. Knowledge of these facts led to the discovery of thalline. It is prepared from paraquinanisol, one of the objectionable bodies, by reduction with tin and hydrochloric acid. The following formulæ show the constitutional relationship of these compounds:—



It is evident from the difficulties which have been encountered in this department of chemistry, and more especially from the costly nature of the work, that it will be many years before it will influence the manufacture of alkaloids from the drugs which yield them. Ladenburg has synthesised coniine, but he has not yet ventured to assert that his product will replace the natural alkaloid.

PHARMACEUTICAL IMPORTS INTO CHILI.

THE Chilian Government have lately published an interesting statistical review of the foreign trade of the country with its three principal European customers—Great Britain, France,

and Germany. The figures relate to the year 1885 only, and do not therefore admit of a comparison with preceding annual periods, which might afford a means of gauging the extension or decline of business in the different sections. It refers, moreover, to the trade with three European countries only, and as the United States, Spain, and other nations are not included in the figures, no precise conclusions regarding the value of Chilian trade can be drawn. But the principal interest of the return lies in the fact that it shows in what departments of trade this country still holds the field in spite of Continental competition, and it is satisfactory to find that in nearly all important articles of pharmaceutical interest Great Britain far outdistances its rivals.

During the year 1885 Chili imported from the United Kingdom, Germany, and France about 185,000*l.* worth (calculating the Chilian peso at its nominal value of 4*s.* 2*d.*) of articles which may be classed as of pharmaceutical interest, exclusive of druggists' sundries, surgical appliances, &c. Of this total 91,000*l.*, or about one-half, fell to the share of Great Britain, 54,000*l.* to Germany, and 40,000*l.* to France. The principal item in the return is simply given as "drugs not enumerated," and apparently includes all crude drugs, proprietary articles, pharmaceutical preparations, and finer chemicals, except a few which are specially mentioned. In this branch Germany comes first with a value of 150,754 pesos, Britain next with 119,959 pesos, and France, a bad third, with 58,220 pesos. Camphor, by which probably the prepared article alone is meant, is nearly all imported from Germany; but this item is not an important one, the whole value of the imports amounting to only 1,789 pesos; and as a set-off England supplies two-thirds of the refined borax, of which 1,591 pesos' worth were taken. Olive oil comes mainly from France, and figures in the returns to the extent of 89,305 pesos, and practically the whole of the castor oil imported (5,231 pesos' worth) is also purchased from that country; but Germany provides four-fifths of the cod-liver oil, the remainder, on a total amounting to 7,305 pesos, falling to England, as does nearly the whole of the "almond oil," by which probably the fixed oil only is meant. Linseed oil and turpentine, which are important classes, the former totalling 37,064 pesos and the latter about one half that amount, are shipped almost exclusively from Britain, as well as cocoa-nut oil, although that is but a very small item. Gum arabic comes from England (4,004 pesos) and from Germany (2,506 pesos), the imports from France being very inconsiderable, while copal (5,794 pesos) and shellac (2,116 pesos) are also almost exclusively bought in England. Perfumery, not otherwise specified, figures in the returns to the extent of 13,724 pesos, divided between England, which takes 6,462, France with 3,736, and Germany with 3,526 pesos. These figures do not include Cologne and Florida waters, for which, as in all hot countries, there is a large demand in Chili, and of which 7,787 pesos' worth was contributed by England, 5,076 by Germany, and 4,918 by France. The consumption of soaps is very considerable, and in this department also the United Kingdom is far ahead of its competitors, with 57,521 pesos toilet soap, and 10,775 pesos common soap, Germany following with 20,267 and 8,914 pesos respectively. No toilet soap, strange to say, appears to be imported from France, but that country sent over 6,638 pesos' worth of the common article, probably Castile soap, from Marseilles. The mineral water figures show 24,366 pesos for England, 11,401 pesos for France, and 6,982 from Germany. The larger figure refers most likely to aerated waters, such as ginger-ale, and the smaller ones to the natural Continental waters. In prepared oil colours this country maintains an easy supremacy, furnishing 120,259 pesos' worth, against 14,471 by France and 4,080 by

Germany, but in "fine oil paints" the German makers easily beat all competition, nearly three-fourths of the 25,000 pesos coming under that heading being contributed by them. In dry paints, of which 16,584 pesos were taken, England and Germany divide the field almost evenly. Among spices, pepper is the only article of any importance. The greater part of this is imported from Germany, about 40 per cent. from England, and an unappreciable quantity from France. Lastly, there is a fair demand for mustard, principally met by the United Kingdom, which exports the powdered variety, while France contributes prepared mustard, but none comes from Germany. Among the exports, nitrate of soda, of course, occupies the leading position; but after this and borates comes iodine. In 1885 the exports of this article to Britain amounted to 1,352,050 pesos, while 606,120 pesos' worth went to Germany. Honey is the next important article of pharmaceutical interest, and unless prices should become unremunerative this item will probably expand. In 1885 Germany took 40,571 pesos, Britain 32,251 pesos, and France 29,569 pesos, while the bulk of the wax, of which 62,817 pesos were shipped, also went of Germany. Aniseed seemed at one time likely to become a Chilean export article of importance, but none has been seen on the London market for some time. Quillaya, however, is finding more favour as a substitute for soap in certain departments of industry. In 1885, 24,695 pesos' worth of this bark were shipped to Germany, 12,600 to Britain, and 10,964 to France.

The New Sixpences. "Branch Manager" points out in the *Times* that it is a great blunder that the new sixpence should be precisely the same in size and pattern as the new half-sovereign, and that it bears no indication of value. It will be very easy to gild these coins and pass them for half-sovereigns. Of course the coins can be distinguished by their respective weights, but in the ordinary course of trade it is impracticable to test in this manner every time a half-sovereign is tendered.

* *

Petroleum Virtues Years ago the New York druggists sold an embrocation for 50 cents, a small bottle, which they called "Seneca oil" and other names, which purported its Indian origin. It was believed in as an excellent application for wounds and bruises, softening the skin, protecting the raw flesh from contact with the air, allaying inflammation, and stimulating the granulating and healing process. In course of time this oil was found to afford a useful illuminating substance, and to be practically the same as that distilled from bituminous coal and called "coal oil." As "kerosene" it quickly became famous, but in its modern magnificence the reputation won in its early career seems to have been half forgotten. Its early virtues, however, still exist. It is an excellent lubricator for machines and, when mixed with ground black-lead, for waggons. It is the best of all paints for preserving wood and making it waterproof. It is a fine application for galls, cuts, and wounds upon farm animals, and for persons as well; for burns it is specially useful. It is an effective insecticide; destroys lice and other vermin upon cattle, and makes an emulsion with soft soap and water which saves vegetables from insect enemies which injure the roots.

* *

Drumine. In a note published in this journal, March 12, page 330, the opinion was expressed that the published reports of Dr. Reid regarding the alkaloid stated by him to be obtained from *Euphorbia Drummondii* did not afford sufficient evidence of the identity of that substance. Reference was made to Dr. Ogston's unsatisfactory results, and to a statement made by the editor of THE CHEMIST AND DRUGGIST OF AUSTRALASIA indicating that the therapeutic as well as the chemical properties of drumine were not quite satisfactory. Reference was again made on page 419 to the contradictory statements on the subject. We observe that

the doubts which we have expressed have been amply confirmed by the examination of specimens received from Dr. Reid or his agents. Mr. Tanner, in a letter to the *Pharmaceutical Journal* of last week, states that he has examined a sample of the substance, and finds it to consist almost entirely of calcium oxalate. A sample of the solution received by Messrs. Savory & Moore was found to be free from alkaloid, and in the hands of an experienced surgeon was found to possess none of the therapeutic properties indicated by Dr. Reid. Drumine must in the meantime, therefore, drop out of existence, but it would be well, before the subject is finally dismissed, that an examination should be made of the plant. This might be undertaken by some Australian pharmacist, if there is no available supply of the plant in this country.

* *

Early Closing According to the *O. P. & D. Reporter* the movement set on foot among business people in New York to close their establishments at noon on Saturdays is making satisfactory progress, and it is confidently expected that in a very short time the custom will have become universal among the commercial community. In many establishments notices have already been posted that no business will be transacted after mid-day on Saturdays, and the wholesale trade, as a rule, are assisting the movement. On May 21 the Exchanges also joined the early closing party, but some of the members are not as yet disposed to accept early Saturday closing all the year round, although they do not oppose it for the summer season. They claim that the observance of early closing will send considerable business out of New York; but before the advent of winter the different trades will probably become so accustomed to the half-holiday that a change will not be desired, and no doubt its popularity will extend to other States. Among the most vigorous opponents of the early closing scheme are the New York bankers, and these, with few exceptions, are as yet resolved to keep their doors open until the accustomed hour; but when the change becomes general, no necessity will exist for the financial institutions to remain open, and they will consequently have to shut up for sheer lack of business. No order has yet been issued on the early closing question to the custom-house and post-office officials, and their establishments will of course remain open pending the decision of the Government.

DRUG IMPORTS INTO BOMBAY.—The imports of drugs into Bombay during 1886 were largely in excess of those of the preceding year, as the following figures show:

Imports.	1885.	1886.
	Rs.	Rs.
Chemicals	943,709	1,134,965
Drugs and medicines	1,534,778	1,576,550
Dyestuffs	1,490,974	1,585,172
Gums and resins	555,667	565,247
Quicksilver	63,058	118,866
Oils	2,391,195	2,969,288
Colours	603,112	815,274
Perfumery	389,665	331,744
Total	7,979,560	9,097,106

INDIAN BANANA LIQUEUR.—The *Indian Agriculturist* calls attention to the fact that India abounds in bananas or plantains, and wonders that the fruit has never been employed in the distillation of a fermented liquor. The common prickly pear has been utilised for this purpose in Malaga, and with considerable advantage to the distillers; and it now appears that missionaries in the Congo region have discovered that a beverage made of bananas is a preventive of malarial fevers. A Banana Liqueur Company has recently been started in India for producing banana liquor in either an alcoholic or non-alcoholic form, and which can be used with equal advantage as an ordinary liqueur or diluted with hot or cold or soda water. For the temperatures of northern regions, including England, it will probably be best esteemed in conjunction with brandy or other spirits.

EARLY ENGLISH MEDICAL LORE.

INQUIRIES into the origin and history of such preparations as oil of swallows, oil of man, oil of earthworms, and the like, which have occasionally formed the subject of correspondence in these pages, interesting though they are, take us scarcely further back than to the herbals and dispensatories of some two or three hundred years ago.

Among the Turners, the Culpeppers, the Gerardes, and the Salmons, the poetry of the early days of superstition had well nigh departed, and little but its nastiness remained, while the comparatively truer light of modern medicine and pharmacy had not yet arisen.

The medical lore of the Early English (or, as we usually style them, the Anglo-Saxons) was partly indigenous and partly derived from foreign sources. They were greatly indebted to Greek and Latin writers, and seem to have gone even further afield for much of their knowledge, though it is of course difficult to say how much of their Eastern and Egyptian lore came to them through classical authors, and how much they got at first hand. It is certain that King Alfred was in direct correspondence with Elias, Patriarch of Jerusalem, upon medical subjects, and it may therefore be inferred that inquiring minds among our early ancestors were not entirely content with book-learning in other quarters. Their native medical science consisted almost entirely of "wort cunning," or the knowledge of herbs, and this was so deeply tinged with magic as to have very little title to respect from modern critics. One of the earliest authorities on Saxon medicine is "the Venerable" Bede, from whose writings it appears that in the seventh century English "leeches" knew nothing of such instruments as the catheter, the lithotritic hammer, or the searching knife (well known to Latin physicians of a much earlier age), but had to depend almost entirely upon the lancet and their very mistaken knowledge of herbs. What their knowledge of herbs was we learn chiefly from the Rev. Oswald Cockayne's "Leechdoms, Wortcunning, and Starcraft of Early England," published in 1864-6 under the direction of the Master of the Rolls. This work consists of original manuscript documents never before printed, accompanied by a verbatim translation into readable, though scarcely modern, English, and several learned prefaces, glossaries, and notes.

In his first volume Mr. Cockayne gives a translation of the Saxon Herbarium, which was founded upon the Latin *Herbarium Apuleii*, with a continuation from the older Greek writer, Dioscorides. Apuleius, the reputed author of the Herbarium which bears his name, flourished in the 2nd century, and though it is by no means certain that he wrote the Herbarium credited to him, it would seem to agree well with his curious learning and discursive genius. There is, however, no doubt that the work fairly reflects the knowledge and the practice of Latin physicians between the dates of Pliny and Galen (a contemporary of Apuleius). Magic and absurdities of various sorts were mingled in these with sounder ideas based on experience. Pliny believed in amulets, and Galen at least professed to believe in incantations. Our Saxon forefathers added a rich store of their own superstitions based on the notions of their Scandinavian ancestors—the most imaginative of all peoples—and entangled with these many more magical rites and charms from later Roman writers, who flourished in the age that followed the incursion of the Northern barbarians. But, after all, the Saxon Herbarium is by no means without value, not only to the antiquarian student, but as a practical guide to the use of herbs in medicine. It compares very favourably with its companion in Mr. Cockayne's volumes, the Leech-book, the sources of which are much more obscure, while its tone is much less scientific, if that term may be used of either. In the latter charms, incantations, and amulets are of very frequent occurrence, and, in fact, the whole book smacks almost as much of witchcraft as of medicine, pointing to a later rather than an earlier source, for, as we have already indicated, both the science and general civilisation of the Romans suffered from barbarian influence after the age of Aurelius. It will be sufficient to say of the Latin writers laid under contribution by the author of the Leech-book, that Alexander of Tralles (A.D. 550), from whom he quotes whole pages at a time, prescribes as follows for gout:—"Some henbane, when the moon

is in Aquarius or Pisces, before sunset, must be dug up with the thumb and third finger of the left hand, and must be said, 'I declare, I declare, holy wort, to thee; I invite thee to-morrow to the house of Fileas, to stop the rheum of the feet of M. or N.,' and say, 'I invoke thee, the great name Jehovah, Sabaoth, the God who steadied the earth and stayed the sea,' and so forth. "The next day, before sunrise, take a bone of some dead animal, and dig the root up with this bone, and say [as before], and put on the root one handful of salt, saying [another incantation]. And hang the end of the root as a periapt on the sufferer," &c. Another authority of an earlier date, who is also largely quoted, thinks it well, in the interests of philosophy, to inform his disciples that it is not necessary, in making up a medicine, to spit once on the earth and once in the drug-pot, as the remedy will be equally sure without it.

The Herbarium includes 185 Articles, but not quite so many herbs, as some of these are inserted twice, under the same or different names. Most of the herbs have been identified by virtue of the descriptions (though these, as will be seen, are very meagre), or by the coloured drawings, which in the original MSS. accompany them; but some of the identifications are only tentative, and there are cases in which it is not even possible to guess what plants are meant. These, however, are not numerous. Amongst those which still have a place in our official *materia medica* may be named:—Hyoscyamus (henbane), colchicum (great wort), chamomile (maythe or maidens), white poppy, hop (hymele or humble), rosemary (bothen), savin, spearmint (? herbametha), dill, possibly digitalis (this is doubtful), liquorice, rue, fennel, elder, and colocynth. Of plants that are still in popular use and often asked for in our shops, though discarded from the Pharmacopœia, there is, as we might have expected, a much greater number. Amongst these are:—Sweet flag (called bee-wort, because "if you hang it in your bee-hive, the bees will be content to stay, and will never depart"), marsh-mallow, navel-wort (lady's navel or wall penny-wort), horehound, madder, mullein (felt-wort, said to be the "moly" which Hermes gave to Odysseus "when he came to Circe, and he after that dreaded none of her evil works"), * quitch grass, penny-royal (dwarf dwosle), wormwood (ware-moth), sage, tormentil (seven-leaf), origanum, stavesacre, white hellebore, and elecampane. There still remains the bulk of the Herbarium to describe. Many other of the herbs in it, such as betony, dittany, vervain, mandrake, &c., not only figure largely in most of our subsequent herbals, but are still used by herbalists, and it is to these (for the most part) that the most wonderful virtues are attributed. We, however, must give precedence to those which have seemed to our own branch of the healing art the fittest to survive, though by so doing we shall be keeping the most curious matter till the last.

It must not be supposed that such plants as are still official with us played precisely the same part then as now. Science had not in those days withdrawn Enchantment's veil from Creation's face, and the doctrine of the Platonists that "a hierarchy of divine beings associate themselves with particular things and places for the purpose of mediating between God and man" † meets us here; to say nothing of those grosser superstitions imported by Saxon adapters. Thus chamomile, though good "for sore of eyes," is so only if gathered "before the upgoing of the sun," and with a spoken intimation to the genius of the plant that it is taken "against white specks, and against sore of eyes." Then let the man "take the ooze, and smear the eyes therewith." This notion that every plant must be gathered at a particular time of the day to ensure its efficacy is still common amongst country quacks. It is very surprising that the elder, about which tree perhaps more superstitions cluster than any other plant in the Herbarium has attracted, is very reasonably treated; the dwarf elder is, indeed, to be gathered with an incantation, but *Sambucus nigra*, the witch tree *par excellence*, the tree upon which Judas hanged himself, but which is nevertheless to this day almost worshipped in many parts of Europe, ‡ is simply said to be good for dropsy, and externally for scorpion-bites and carbuncles. Hyoscyamus is recommended for sore ears and

* Mr. Andrew Lang, however, says Apuleius Barbarus identifies moly with wild rue (*Custom and Myth*).

† *Marius the Epicurean*.

‡ See De Gubernatis, *La Mythologie des Plantes*.

teeth, bad breasts, swellings in various parts, and the juice internally for lung disease. In the Leech-book it is prescribed in another fashion, and one not unfamiliar to our readers, thus:—"For toothworms.—Take acorn meal, and henbane seed, and wax, of all equally much; mingle these together, work into a wax candle, and burn it; let it reek into the mouth, put a black cloth under [? white, the original meaning of *black*, from same root as bleach, and blanch, hence Ray's "as *blake* as a paigle," or cowslip],* then the worms will fall on it." And again:—"For worms in eyes.—Take seed of henbane, shed it on gledes [red-hot coals], add two saucers full of water, set them on two sides of the man, and let him sit there over them; jerk the head hither and thither over the fire, and the saucers also, then the worms shed themselves into the water." Mr. Cockayne appends a learned note on the supposed prevalence of worms in ancient leechcraft, but apparently has no doubt but that it is really the worms, and not a part of the seeds, that "shed themselves" as aforesaid. Gerarde says of this cure:—"The seed is used by mountebank tooth-drawers, which run about the country, to cause worms to come forth of the teeth, by burning it in a chafing-dish of coles, the party holding his mouth over the fume thereof; but some crafty companions, to gain money, convey small lute-strings into the water, persuading the patient that those small creepers come out of his mouth or other parts which it is intended to cure."†

It is strange to find many of these herbs put to very different uses from those for which we now employ them. Thus comfrey (or jalluc) is recommended for one "bursten within"; it is to be roasted in hot ashes and swallowed in honey, fasting; but nothing is said of its bone-setting property. On the other hand, mullein is said to be excellent for gout, pounded, and applied to the limb; but there is not a word as to its use in chest affections, which has gained for it amongst country people the name of Bullock's Lungwort. Of course such a magical plant must have many occult virtues, and we are, therefore, not surprised to find that, "If one beareth with him one twig of this wort, he will not be terrified with any awe, nor will a wild beast hurt him, or any evil coming near." Dill, again, is not recommended as a carminative, but as a remedy for local itching; fennel is for cough, and "sore of bladder"; mint for tetter and cuts on the head; pennyroyal for almost anything but suppression of the catamenia; madder (which is now rarely given to anything but pigs) is for broken legs, which it is said to heal on the third day! White hellebore, which is also called *tunsingwort* and *wood-* [that is *mad-*] *berry*, is recommended for diarrhoea, and also, very highly, for "old, grievous, and incurable disorders" generally. It is one of the few plants which might possibly have been identified by the description alone. It is said to be "produced on downs," and to have "leaves like a leek." "It hath a small root, and not so straight but that in some part it is bent; it is brittle and tender when it is dried, and when it is broken it reeketh just as if it sent forth from it a smoke, and it is in some degree bitterish to the taste. The larger roots, however, are long and hard, and very bitter to the taste, and they have a virtue to that degree powerful and mischievous that they often suddenly choke a man." Of the usual style of description that of vervain may serve as a specimen:—"This wort, which is styled *verbena*, is very near akin in colour to culvers [that is, doves]." It is good for poisons, and, what is equally useful in our days, "If any man have with him this wort, he may not be barked at by dogs." Nothing else is said of it but that "it is said that sorcerers use it for their crafts," which is putting the thing mildly, seeing that vervain was (and, in fact, is still) held a magical plant from Hindustan to Ireland. Everyone knows that

Vervain and dill
Hinder witches from their will.

It is to the credit of the Herbarium that it is almost equally reticent respecting the magical properties of betony. It is, indeed, said to be "good whether for the man's soul or for his body," but that is all. Even the forty-seven different physical ailments which Antonius Musa, physician to

Augustus Cæsar, affirmed that it would cure (and Musa was according to Culpepper, "an expert physician, for it was not the practice of Octavius Cæsar to keep fools about him") here shrink to twenty-nine. Since our physicians have discarded the plant, there is no need to name them. Its virtues, however, are still believed in by many, and the proverb, "when a man is ill, let him sell his coat and buy betony," bears witness to them amongst us, as amongst the Italians does the similar one, "May you have as many virtues as betony." It is hardly needful to say that the mandrake is shorn of none of its magical and terrible properties. These Mr. Cockayne traces to what Josephus says (Bell. Jud. vii. vi. 3) of the Baaras, "an herb that runs away from the man that wants to gather it . . . and even then kills the dog that draws it out." Pliny (a contemporary of Josephus) certainly says the same of the mandrake, and it all reappears, with additions, in the Herbarium; but its Greek name of *Circæium* (from Circe) points to an older origin for these notions, and it is certain it had a magical character long before Josephus wrote. Its shining by night "altogether like a lamp" (whence the Arabs call it "the devil's candle," and Moore in "Lalla Rookh" speaks of

Those hellish fires that light
The mandrake's charnel leaves at night).

is not peculiar to it, for the Herbarium mentions another unidentified plant named "astereon," from its possessing a similar property, which is also attributed to the peony. In most respects, however, the mandrake is unique, and it cannot excite surprise that a root of which such wonders are told should not only be good for headache, sore ears, devil sickness, and gout, but should also have the power of driving all evils out of the house. The wonder rather is that it could do no more, in that remote "age of faith," when so prosaic an herb as the castor-oil plant, if its seeds were hung in the house, could "turn away the tempestuousness of hail," and, with suitable incantations, smooth every tempest.

Many of the less marvellous effects attributed to some herbs are no longer attainable, such as that to smear oneself with a mixture of pennyroyal and wormwood in vinegar and oil will prevent sea-sickness; or, that if women "kindle [bear children] with difficulty," they may be "healed" by taking a bath of water in which parsnips have been seethed; or, that if you lay peony over a lunatic as he lies, "soon he upheaveth himself whole." But our later herbalists, down to a very recent period, taught quite as great absurdities as these, and as a set-off to much of the Herbarium's magic, it must be noted that it is not disgraced by the astrological rubbish of Culpepper and other later herbalists. Some plants are certainly directed to be gathered in the evening, or the increase of the moon, as the case may be. Even the Venerable Bede, a scientific writer for his time, who expressly forbids witchery and prognostics by the moon, says that "it is natural that all earthly bodies shall be fuller at the waxing of the moon than at its waning"; nay, so late and so sober a writer as John Evelyn, the diarist, gives a half-assent to this opinion. But this is very different from regarding every plant as under the influence of a particular planet, neither does the doctrine of plant-signatures—that, as Coles says in his "Art of Simpling" (1656), God has given every herb "particular signatures, whereby a man may read, even in legible characters, the use of them"—find any place here. Thus the two chief sources of error in this field are excluded; and, in fact, this Herbarium, did it stand alone, might make us suppose that our Anglo-Saxon forefathers were very respectable herbalists. It is true their methods of preparation and application are the crudest. "Preparation" is often conspicuous by its absence. The raw juice, or the pounded herb, is to be used anything but *secundum artem*. At the most, it is directed to be "seethed" or "boiled" in water, or wine, or beer, or "brewis"; often it is merely to be wreathed about the head, or bound about the limb, as it is.

Unfortunately for our ancestors' reputation, the Herbarium does not stand alone.

Next after the Herbarium in Mr. Cockayne's volumes comes the *Medicina de Quadrupedibus* of Sextus Placitus. Who this writer was, or whether any person of the name ever existed, is doubtful; but the "stuff" (as the translator rightly calls it) of which the work is composed evidently had a reputation in its day. The book purports to have been sent by a mythical Idpartus, King of Egypt, to Octavius Cæsar. This is, of

* "It is a fact that black is white, or once was. In the Norse 'blakke hund' means a white dog."—Miss Yonge.

† Sir John Lubbock, in his *Origin of Civilisation*, gives a somewhat similar account of medical jugglery among Indian natives.

course, a cock-and-bull story, and what follows is worthy of it. The only article in the book that has any direct interest for us is the one on the hart, from which we learn that the restorative and stimulative properties of hartshorn were well known in olden times. One drachm of ashes of hartshorn is ordered in wine for headache; it is also said to "restrain sore of wamb [belly-ache]:" mixed with vinegar it is to be applied to tetter, for which it is also ordered in conjunction with silver filings (*spuma argenti*); and it is said to be excellent for "women's disorders." There are two other "leechdoms" in the book that may be given here, as they are still believed in, and occasionally practised, in some rural districts. This is one: "For warts.—Take a fox's coillon; rub the warts very often with it; quickly it breaketh them up, and removeth them away." The other is to the effect that for women to eat hare promotes conception. This is probably enough to show the character of "Sextus Placitus": the whole work is too absurd, and too nasty, for further consideration; but the curious may find in it a few other recipes which, according to the Rev. T. F. Thiselton Dyer, still linger in various parts of the country.

The "Leech-book," which comes next, proceeds upon the notion derived from the ancients that "in the human body there are four humours, inasmuch as the rainbow is also composed thus; that is, the humours in the head, and the blood in the breast, and the raw bile in the inwards, and the swart [black] bile within the gall bladder." Each of these humours, according to Plato and Aristotle (whose authority none dared to question), ruled for three months. "From the 15th December till the 25th March (they say) the humour in the head is waxing. And from the (date wanting) of March to the 25th June the blood is waxing in the breast; from the 15th June (*sic*) to the 25th September the bile is waxing in the inwards. . . . And the fourth division is from the 15th September to the 25th December, when the black bile is waxing in the gall bladder. This is distinguished according to the four cardinal points of the earth, and of the air, and of the deep." There were also in this system forty-five *dies caniculares*, "in which no leech can properly give aid to any sick man." Starting from these premisses we may know what to expect. We find, of course, nothing in the nature of a proper diagnosis. Diseases are distinguished more by their outward symptoms than their inward causes: the method is, in short, that of the empiric, not that of the scientific physician. All causes are either "hot" or "cold" or "moist" or "dry," correspondent with the "four elements" of which all things are composed; and it is according as these four affect the four humours of the body that it is healthy or diseased. Thus for "a half head's ache" (megrim) the following "tokens" are given. "The disease cometh of evil humour flowing, or evil vapour, or both. Then shall one first in the early disease let blood from a vein; afterwards shall be administered a wort drink, and the disease shall be cured. If the disease be caused by mickle heat, then shall one cure it by cold leechdoms: if it cometh of cold causes, then shall one cure it by hot leechdoms;" for all warts are classed as hot or cold in the first, second, third, or fourth degree in all old herbals. Again, of "hoast," or cough (a word still current in rural England), we read: "The hoast hath a manifold access, as the spittles are various. Whilom it cometh of immoderate heat, whilom of immoderate cold, whilom of immoderate dryness." The remedies prescribed are accordingly various. The tokens of a "diseased maw" are, as might have been expected, more numerous still, being chiefly "frequent spittings or breakings, choiceness about food, and for a man to spew frequently; and he will have a sense of swelling, and that the hot inflamed humours are shut up within him." This is "nature pictured too severely true." The diseases following from this are also enumerated at direful length, and among them are "mickle murmurings," "fiend's disease," and "uneasiness without occasion." The maw is described as "near the heart and the spine, and in connection with the brain, from which the diseases come most violently, from the circumstances of the maw, and from evil juices, humours, venom-bearing." Many excellent directions as to diet and regular living are given under this head, and in several other cases also instructions how to avoid disease are added to the descriptions of the various organs of the body and their functions. These descriptions show a practical acquaintance with physiological phenomena, but very little or none with anatomy, as we now

understand it. Thus the leech is in one place told to let blood from "the upper vein of the arm," *if he can find it*; if not, from somewhere else! Still, amid much ignorant jargon about "humours" and "elements," we find in these descriptive portions of the book much that does credit to the compilers; some real knowledge, and an evident desire for more. Our Anglo-Saxon leech, as we here make his acquaintance, appears to have resembled Chaucer's clerk—"gladly wolde he lerne, and gladly teche."

But he did not give his attention chiefly to the *causes* of disease; he saw the symptom, and "went for" it with a directness worthy of Mr. William Nye. And, if his knowledge of disease was less thorough than that of his modern successor, his armoury against it was almost as varied and much more formidable. In courage he was sublime. Here are samples of two kinds of "heroic remedies": "If one drink a creeping thing in water, let him cut open a sheep instantly, and drink the sheep's blood hot." "For worms again: mingle and rub up with honey a hard and very dry goat's turd; administer it to be drunk; that will drive them away." We should think so! Then for *doses* take these: "If a man may not pass water, take of cummin as much as thou mayst lift with three fingers, triturate it, add thereto *two bowls full of wine* and two others full of water, and give it him to drink after his night's fasting." And again:—"Work a good draught for a dry disease thus: Take wormwood and rosemary, agrimony, pennyroyal, the small wendwort (*Ranunculus ficaria*), earthgall, eggwort, drywort, of green hellebore two pieces, of helenium three pieces, of cammock four pieces, of woodwaxen a good deal, and some centaury." These herbs, in these vague quantities, are to stand for three days in an unstated quantity of beer, which is afterwards to be drunk by cupfuls. And after one such prescription it is piously added: "If God will, no harm shall happen to him."

Many, indeed most, of the internal remedies are of this multifarious and haphazard character. The external applications are equally foreign to our notions. Smearings, oilings, bathings in all manner of decoctions, steamings, "reekings," sweatings, poultices compounded of every sort of filth—mostly that which comes (like Peter Pindar's "dirt in lanes") "from dogs, and sheep, and geese, and horses' bums," abound on every page. Many of these are still popular with the common people, but a few only of the more curious need be given here. We begin with some that still retain, though in a different form, a place on our rural pharmacists' shelves. Brick, for instance, represents our oil of brick. It was probably used in northern countries from the time of the dateless Scandinavian King On, if not before. Kings survive in history for various reasons, and this monarch's name appears to have been preserved because he snuffered from worms. Hence this recipe:—"Against On's worm:—Pound to dust a red tile or brick, mingle with groats, bake a cake (of same), and lay it on the wound." This worm appears to have been a very "fearful wild fowl" indeed. Occasionally it would "eat through to the outside, and make a hole"; in which case ground glass was to be sprinkled on the place. It is somewhat in the nature of a reprisal upon his tribe to find worms prescribed for the cure of other disorders. Thus for palsy the direction is to "pound up earthworms and apply them." The same prescription is given for "rending of hound"; while for leprosy "worm meal" is to be worked up into salve with butter, and, certain herbs having been added, to be poured into a "byden" [bidet] for the patient to sit on." Here, apparently, we have the origin of oil of earthworms. For the first hint of its usual companion in popular recipes, oil of swallows, we have not far to seek. It occurs in the following prescription for erysipelatos eruptions:—"For that ilk, take a swallow's nest and break all up together, and burn it with sharn [dung] all together, and rub it to dust, and mingle with vinegar, and smear therewith." In another place swallows are prescribed for internal administration, thus:—"For cheek disease:—Burn a swallow to dust and mingle him with field bees' honey; give the man that to eat frequently." Another bird, a cousin of the swallow, is recommended for a very curious purpose:—"If a man fight with his foe, let him seethe sand-martins in wine, and drink them ere the fight." The efficacy of this recipe would probably depend a little upon the quantity of the vehicle employed. Oil of man is foreshadowed in the direction to apply "a man's head-bone burnt to ashes" in case of a "boring worm" proving insensible to other treatment.

We saw when dealing with the Herbarium that the efficacy of an herb was sometimes thought to depend upon its being gathered with a declaration of the intention of the leech to use it for a certain purpose. Sometimes it was equally necessary that the patient should know nothing of the matter. Thus, to stop bleeding from the nose, "poke into the ear an ear of barley, so that he know nothing of it." Other cures are to be tried "in silence." For bite of a hunting spider it is necessary to draw blood with a cupping glass from the adjacent parts, and "silently throw it over a waggon way." "Woman's milk" is frequently prescribed as a vehicle, but it depends upon the nature of the disease whether it must be from a woman who has borne a male or a female child. Many things seem to be highly regarded as medicines only because they are not easily met with. Thus, "if thou find a fish within a fish," it is excellent for retention of urine, but here again it is said "administered in such a manner that he know it not." Certain little stones found in a swallow's mouth are similarly ordered in cases of dementia, and "if a man will eat rind which cometh out of Paradise no venom will damage him." It is added that this rind is "hard gotten."

In all these things there is a suspicion of magic, but many of the remedies most highly esteemed are purely magical. Holy water as a vehicle, and the oil of extreme unction, may be classed with these. So may the instruction that a certain drink is only good when drunk out of a church bell, the setting of others under the altar for a while before administration, and the use of incense. Amulets are frequently prescribed, such as a crab's eyes (taken out of a live crab) and worn round the neck for dimness of sight, the canine tooth of a fox (also from the live animal) for fellon, and others without number. Incantations anything but sacred are as common. These were sometimes ordered to be used over the herb, sometimes over the patient. Robert Turner, who wrote some 200 years ago, could hardly have been aware that reputable physicians had used such arts when he denounced the singing of charms over plants, "as did the Druids of old and other heathens; and as do some cacochemists, Medean hags, and sorcerers nowadays." Many rites are also prescribed of which the meaning and origin are alike obscure, such as waving a bloody brand in cases of "venom," and a curious recipe, too long to quote, for "wens at the heart." Amongst all the remedies, surgical or medicinal, there are but few of mineral origin. Iron, quicksilver, sulphur, alabaster, the agate, some few unnamed stones, silver, and gold are the only ones we have noticed. Of these gold is ordered only for its magical properties, for the gathering of certain herbs. The agate was most highly prized for its eight miraculous virtues. It would preserve not only from diseases and witchcrafts, but from thunder, and earthquakes, and all other evils. So, at least, thought Elias, Patriarch of Jerusalem, who sent an agate to our King Alfred with these recommendations. The Patriarch also speaks highly of petroleum and "triacle," for which last, however, he gives no formula.

It is not surprising that with all these forces, natural and supernatural, at command, the "leech" should have attacked all sorts of disorders, whether of "mind, body, or estate," with a courageous heart. He was not very discriminating in his employment of his weapons. As he would essay the cure of paralysis by a *miserere*, so he would drive out the devil by "a spew drink." The latter, indeed, would probably be the more effectual of the two. From the devil, at any rate, he would stand no nonsense. Against him he was armed at all points, as need was, seeing that he attributed to Satanic influence about one half "the ills that flesh is heir to." He shrewdly suspected it, as we have said, in dyspepsia (Carlyle would have confirmed his suspicion); he detected it (as Burns did) in toothache; in all cases of fever he took it as a "working hypothesis"; he found the devil in nightmare; he invented him in diseases of his own imagining, such as the horrible *daemonum conebitus*, and others that we cannot name, even in Latin; but madness in all its forms he took for a veritable "fiend sickness," or "devil disease." Like the Jews of old, he looked on this as "possession." His devil, however, was not quite the devil of Scripture. The old Scandinavian dwarfs, and elves, and trolls, and other creatures "more wicked than himself," had helped to enlarge the personality of Satan for our rude forefathers. This idea of the ubiquity of Satan lay at the root of all their magic, and we find, in consequence, that magic enters into almost all the

prescriptions for the cure of madness. The foul fiend was pelted with aves and credos and texts of Scripture; he was abused in good Saxon ribaldry; he was salved with henbane in sheeps' grease, drowned in sour ale and centaury, bathed in holy water, sung over, prayed over, incensed, and, finally, expelled by a "pretty strong brewit" of bishopwort and agrimony, or a "spew drink" of sedge and gladden. For mere "temptation of the devil" such comparatively mild herbs as betony and blackberry were held sufficient (if previously laid under the altar); for "elvish tricks" nothing was found so effective as a strong purgative. Of this we may ourselves say *probatum*, having seen the best results from 2 oz. of haust. nig. in an aggravated case of Sunday afternoon side-door bell-ringing. "Against a woman's chatter" but one remedy was known from which any good result could be hoped for. This it would be cruel to withhold; it consists of a raw radish eaten overnight. "If a woman should suddenly grow silent," more energetic measures were to be taken. In that case the patient was evidently considered *in extremis*. There is no occasion to give the recipe.

We must not omit to mention that the leech of old time undertook some part of veterinary work as well as the nobler branch of the healing art. Hence we find in the Leech-book recipes (though not many) for horse and cattle medicines, and other matter relating thereto. In other parts of Mr. Cockayne's volumes are "charms" for the recovery of lost cattle, for bewitched land, to prevent bees straying, and other purposes. They contain also much of the "star-craft" and dream-lore of the time; but of these, as having no special interest for our readers, we need say nothing.

Dental Notes.

SUGAR OF MILK has the property of dissolving rapidly the calcareous deposit between the teeth. It therefore forms a valuable dentifrice.

A LOCAL ANÆSTHETIC composed of equal volumes of oil of cloves, oil of cinnamon, and chloroform has been recommended by an American dentist for application to the gums by means of cotton. It may also be used for the relief of toothache.

COCAINE NERVE-PASTE.—MR. E. S. KIRK has found the ordinary preparation (composed of equal parts of arsenious acid and morphia acetate made into a paste with creasote) to be quite irregular in its action, frequently causing attacks of violent odontalgia when an application was made for the purpose of devitalisation. This objection was not experienced with a preparation made according to the following formula:—Acid. arsenios. pulv., cocaine hydrochlorat., aa. gr. xx; menthol cryst., gr. v; glycerina, q. s. to make a stiff paste.—*Dental Cosmos*.

SULPHIDE OF CALCIUM IN GUM BOIL.—Writing to the *Journ. Brit. Dent. Assoc.*, Mr. A. C. Roper says of the use of calcium sulphide as a remedy for abscess:—"I have seen a large and pointing gum boil entirely recede under this treatment, and I have no doubt of its service, although no knowledge of its *modus operandi*. Its principal use in medicine is probably its almost wonderful effect on enlarged strumous glands, which, if they have not already begun to suppurate, it causes to diminish in size, or if suppuration has begun, it causes the abscess to mature in a few days, instead of lasting many wearisome and painful weeks; and then to discharge healthy pus and heal rapidly, instead of the many weeks or months for which we have been accustomed to wait, whilst an unhealthy sort first hesitates and then slowly heals when the patient's health has been restored by tonics and treatment. It will be necessary to continue the sulphide for three or four days—allowing longer intervals to elapse between the doses as its effects become apparent—to ensure its full success, whilst tincture of gelsemium need only be given as the pain requires. Indeed, the sulphide itself has such an influence over the pain of periodontitis, that probably the first two or three doses of gelsemium will be all that are required." He recommends the sulphide to be given in the dose of $\frac{1}{20}$ of a grain every hour or two.



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish.

Write on one side of the paper only; write early; and devote a separate sheet of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers please mark what you wish us to read

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Letters, queries, &c., not noticed in this issue will, if possible, be attended to next week.

Before writing for formulæ consult the last volume, if you have it.

The Examinations.

SIR,—The subject of the Minor examination is again attracting attention in your columns. Will you allow one whose experience has probably been at least unusual to give his impressions?

I read with interest the correspondence which was published two years ago in THE CHEMIST AND DRUGGIST on the same subject, and was upon the verge of rushing into the fray when a suggestion was made by one of your contributors that a correspondent who had gently hinted that his examination had been none too difficult should be accommodated with a glass case, and preserved for the admiration of succeeding generations in the museum attached to 17 Bloomsbury Square, W. Now, sir, being constitutionally of a shy and retiring disposition—like Mr. Orson's partridges on the first of September—this proposition had an extraordinary effect upon my nerves, and I determined to remain on the side of the angels. But a great many things have happened during these two years; I have been so frequently shot at and so judiciously hit, that really the glass case, and even the playful humours of your correspondent, have lost half their terrors. Unfortunately, personal considerations must to a certain extent affect the character of my evidence. As, however, I do not intend to append my name to this letter, I trust to escape the charge of egotism; so much concession to the feeling of two years ago I am unable to withhold.

At the age, then, of thirty-five I found it necessary to choose a profession and I selected pharmacy. I went into it, I think, with every possible disadvantage except one—a good general education. I knew the points of a horse, and my judgment has been deferred to on the subject of a dog and gun; but if ever I had heard of aloes, myrrh, and cassia, it had been in literature not generally spoken of as pharmaceutical. I had, in short, been brought up with the notions of the ordinary better-class farmer, and in common with so many more of that genus had suffered so seriously by the unprecedented depression in the value of land and its produce that a complete revolution in my mode of life appeared to me to be at least highly desirable if not absolutely necessary. I counted very carefully the cost and made the plunge with as much cheerfulness as I could muster. I passed the Preliminary examination within two months of going into trade, and began at once to study for the Minor. During the first year I read nothing much beyond the Pharmacopœia, but this I read and re-read so pertinaciously that I think it would require a strong and continued mental effort to be ever able to forget it. Through the kindness of a medical friend I then spent six weeks dispensing in the infirmary of one of our larger cities; my evenings during these six weeks were passed in the reading-room of an institution which is famous for its

library in the northern counties. The two years following were spent at home in the ordinary routine of a country business, prescriptions few and far between, but every spare moment given to reading. Then came the inevitable three months in London—three months of Mantalinian grind. It is fashionable, I know, to sneer at these “cramming shops,” but as far as I am able to judge, the teaching here was conscientious and thorough.

Then came the Minor and rejection on the first subject. I was keenly disappointed, especially as I was not allowed to go any further with the examination. No fault was found with the appearance of my mixture, ointment, and pills, but I had made a serious miscalculation in the quantity of hyd. perchlor. to be distributed amongst those wretched pills; an unpardonable mistake, perhaps, but one due entirely to nervousness in a calculation which any Board school child could have made readily enough. The following day saw me back at business, to which I stuck for another three months; at the expiration of that time I again went in for examination, and succeeded in getting enrolled in the noble army of chemists. With regard to rejection after failure in one subject, I think some alteration should certainly be made. I feel now, when the lapse of time has probably conducted to the formation of an impartial judgment, that I was quite as well prepared when I failed as when I succeeded in passing. It would also be a far fairer test of a candidate's ability in dispensing if this part of the examination were wider in its scope.

With regard to the numerous failures, I am inclined to think that deficiency in general education has very much to do with them. I was astonished when in London at the evidences of this. I am bound to say that I saw very little of the laziness and dissipation with which pharmaceutical students are sometimes taunted. As a rule students worked hard and were regular in their attendance in class, but their general standard of education was far below what I expected to find it. It was not so much perhaps ignorance of facts as inability to deduce any reasonable conclusion from suggestions which happened to lie outside the limit of their everyday experience, a lack of mental training generally. This was especially noticeable in physics, I think it is Jules Verne who relates the story of the French *religieuse* to whom the fact that rivers usually flow through the large towns supplied a cause of wondering thankfulness for the providence of the Almighty. Before going to London I should have thought this an exaggeration; I think so no longer. The only remedy for this state of things seems to me to be a material increase in the stringency of the Preliminary examination. There appears to me to be no reasonable proportion between the requirements of the two examinations. I should say that with a Preliminary which would be a real test of good general education the Minor as at present conducted would be easy enough, perhaps rather too easy, but no one can at present contend that the Preliminary is any guarantee of such education.

I offer these few observations with some diffidence, feeling myself even yet to be perhaps rather *in* than *of* the trade. My experience has been briefer and less minute than that of some of your correspondents. This from some points of view is no doubt a disadvantage, but I am not sure whether it has not its compensations. Pharmacy appears even to an ex-farmer to be eminently conservative. If I boast a shorter experience than some, it is just possible that by reason of this very defect I may be freer from the predilections and even the superstitions (I do not use this word offensively) of some of the honoured fathers of the trade.

Yours, &c.,
ATHLEMA.

Mr. Armbricht's Business.

SIR,—There was a mistake in your notice. The numbers of prescriptions dispensed by me in May, 1886, should have been 1,173, and not 1,773. Will you have the kindness to correct it?

Yours faithfully,
E. L. ARMBRICHT.

2 Duke Street, Grosvenor Square,
London, June 20, 1887.

The Trade Association.

DEAR SIR.—Your report of the meeting of the Trade Association contains a singular inaccuracy which I am anxious to point out.

In my remarks in support of Mr. Wyley's amendment you make me say that, "Acting on the advice I received from the Association, I was able to quash the case against me." Unfortunately this was just the reverse; the advice given me prevented me making a compromise, when I could have done so by a simple apology; and by the Executive throwing up their obligation to defend me at the last moment, I had to pay the apothecaries' claim against me and legal costs, my own included.

I think we must all see the vital importance to the trade, that a powerful and truly representative association should be in existence to defend the interests of its members. Complaints have been made of the apathy of chemists on the subject, that there is no *esprit de corps* amongst them, and trade jealousy tends to keep them asunder.

I do not believe any of the statements so pathetically uttered by the Executive; but the unpleasant fact that the Association is not popular with the trade there can be no doubt about. The cause may perhaps be found in a very general belief that the Association as now managed is not to be depended upon when an emergency arises. My recent prosecution by the Society of Apothecaries is a case in point, and will easily account for the successful effort to burke all mention of the subject by the Executive at the recent meeting.

Let the Association be reconstructed on a more economical basis, and the cash and energy be reserved for defensive purposes. Opposing registration of labels may in some cases benefit the trade, but this may be carried too far. Most of us have a few specialties we may desire protection for, and we may find our energetic Secretary wasting his talents on these little matters and letting more important cases slide.

The fact is, if a trade association is to be successful, it must be prepared to take up and defend every case of attack (short of fraud or criminality) which may be made upon its members. Every case should be defended upon its merits; any man can get legal defence if he can pay for it, and if the Association declines to take up and defend difficult or bad cases, it does not do its duty, and there is no reason for its existence.

The principal objects of a trade association should be to defend its members from prosecutions by the Society of Apothecaries, to obtain the repeal of the penal clause of the Act of 1815, and to put a stop to the illegal, unqualified, and ruinous practice of pharmacy by stores. If the Association will start afresh with these objects in view, it will gain what it certainly does not possess—the confidence and support of the trade, increased subscriptions, and a long and prosperous career.

Coventry, June 21.

Yours respectfully,

HENRY GLOVER.

[Mr. Glover read his remarks very indistinctly, and amid continual interruptions, so that it was impossible to gather with certainty the purport of his remarks.]

The Knights of Pharmacy.

Pharmacy has been singularly neglected in the distribution of honours. Had it been otherwise we should have published the following poem:—

I WANDERED thro' the London streets,
And met a beggar old,
A poor old man one often meets,
But not with spurs of gold.
And yet two golden spurs adorned
Or hindered when he ran,
The aged boots that widely yawned
Of that same beggar-man.

I thus addressed that beggar-wight
(Tho' he'd not begged of me)—
"Kind sir, or, rather, noble knight,
For golden spurs I see —"
I saw his eyes with tears o'erran,
And wept as hard as he;
"How did you plan your knight-hood man?
They've never knighted me."

He said, and drew himself erect,

He was but five feet four,

"I'll tell the tale, and all correct,

Let's shelter 'neath this door."

We sat upon a doorstep cold,

The rain was falling now,

The while he told, like knight of old,

His little tale of "how."

"A pharmacist from early youth,

I studied and I toiled,

I strove for fame. To tell the truth

My life and work are foiled.

I wedded drugs, for better, worse,

Yet have I gotten fame?

These useless spurs, this empty purse,

This handle to my name!

"I slew the dragon Ignorance,

I set fair Science free,

I fought foul plague and pestilence,

I, and some more with me.

We raised the sick folk from their bed,

And soothed their dying hour,

Made pure their bread, and loving fed

Their young with sulphur-flower.

"All this we did. No orders dressed,

No silver trumpets blew,

No surging crowd our brave steeds pressed

To get a nearer view.

We had no steeds. And this explains,

We had no means to buy.

We'd all the pains, none of the gains,

The pharmacists and I.

"Till our great Prince (who, near the throne

Hopes nearer yet to be)

Was set on building halls of stone

A project Jubilee!

Then calls he out our ragged crew

'What ho! Great Pharmacy!

I've long loved you, what will ye do

To show your love for me?'

"We knelt, of course, with bare, bald head

(Our knees were stiff and old

And some were filled with awful dread

Of catching such a cold).

'What our lord wills!' the hall resounds.

And gracious he replies:

'Bring only, zounds, some thousand pounds

To help my great house rise.'

"Back from the Royal Presence then

With many a courtly bow

And yet, than us, for sadder men

You'd hardly look, I trow —"

He paused awhile, for moment brief,

I thought was off his head,

Till 'whelming grief had found relief,

And with the rain-drops fled.

Then bravely choking back his tears

He cried, "We kept our vow!

Ah, we would prove the love of years,

We *would* obey him now.

We sold our books, we pawned our plate

(Not silver; hadn't any)

We pondered late and questioned fate

How we could raise a penny.

"We parted with our stock in trade

Our hope of future gain;

Such awful sacrifice we made,

I doubt if we were sane.

Our very boots, we nobly swear,

Should go. What boots it all,

Tho' ladies fair have fifty pair

And we have none at all?

"— I weary you, my kindly friend,
Old men to prose are wont."
"Ah, no," I murmured, "say the end !
You don't, indeed you don't !
Yet stay, I read the mystery now,"
I said, "You pawned and sold—"
"Aye, kept our vow, and that is how
I won my spurs of gold."

June 16.

R.

DISPENSING NOTES.

[The opinion of practical readers is invited on subjects discussed under this heading.]

An Emulsion Wanted.

Mutare (117/2) would like to know the best method of compounding the following prescription:—

Ol. macis exp.	3ss.
Ol. olive	3ij.
Aq. ammon.	5ss.
Spt. rosmarini	3i.
Aq. rose	3iiss.

Liquor Opii Sedativus.

Inquirer (117/22) asks:—"Is it correct to dispense ext. opii liquid. when 'liq. opii sed.' is prescribed, no special maker being mentioned?" [As the liquid extract of opium of the British Pharmacopœia is totally different in composition from what is generally understood as liquor opii sedativus, the question should rather be, 'What should be dispensed for liq. opii. sed when a maker's name is not specified?' To this we will be glad to receive replies.]

Cocaine and Iodine.

SIR,—I would be glad to know the proper way to dispense the following formula, and also whether it can be prepared so as to produce a clear solution. Yours truly,
Aix-le-Bains, June 20. H. S. NAFTEL.

Iod. pur.	ij. gr.
Pot. iodid.	iiij. "
Cocaine chlorhyd.	ij. "
Glycerin	3ss.

M. S. A.

[The mixture cannot be dispensed clear, as the cocaine is precipitated in the form of an iodine compound. So far as the cocaine is concerned the preparation will be almost therapeutically inert.]

An Explosive Mixture.

Messrs. Fletcher, Fletcher & Stevenson write:—"The bursting of the bottles is most probably due to the development of carbonic acid gas, resulting from mucous fermentation. The cane sugar in the mixture, in the presence of albuminous matter, and of the ferment existing in honey, would be gradually resolved into mannite—a change which would be accompanied by the escape of carbon dioxide and hydrogen. We should recommend your correspondent to omit either the honey or the sugar, using glycerine instead. With reference to your remark that the concentrated liquor of tolu 'is generally a weak preparation,' we have pleasure in forwarding you a sample of Fletcher's Liquor Tolutanus, and also of the syrup (1 to 7) prepared therefrom. We think, on examining these, you will be inclined to modify your opinion."

[We have examined the samples of liquor and syrup received from Messrs. Fletcher, Fletcher & Stevenson. The syrup has the full aroma which characterises that prepared by the official method, and is perfectly bright. The former character is in a correspondingly greater degree manifested by Fletcher's liquor, which is far from being a weak preparation. The explanation given above regarding the bursting of the bottles corroborates our own.]

LEGAL QUERIES.

Nix (68/117) writes at some length "on the inroads which grocers and others are making into our trade." He gives a number of quotations from grocers' price-lists—*e.g.*, senna, 1s. per lb.; seidlitz powders, 1s. boxes for 6d.; glycerine, 1s. per lb.; castor oil, 1s. per lb., &c. One states that his articles are prepared according to the British Pharmacopœia. Our correspondent asks:—"Could not a clause be inserted in the Pharmacy Act restricting the sale of B. P. articles at least to chemists? It is absurd in the extreme to expend money, time, and brains to be made a chemist of, and for people of any description, and without passing examinations, or knowledge of what they are selling, to vend such things as spirit of camphor, hartshorn and oil, sal volatile, Parrish's food, and other things of which an overdose would be dangerous. Mild poisons should be scheduled as well as those which are. What is the use of examinations, if we are to have no protection?"

[The subject has been so fully discussed in the past, that we cannot give space for more of this letter; but we may state that in our humble judgment there is no more chance of passing such a clause as is suggested than there is of getting Parliament to pension every chemist and druggist. There is nothing, however, to prevent "Nix" or any one else from drafting the clause and getting a member of Parliament, if he can, to propose its insertion in the Pharmacy Bill. "Nix" may rely on getting a service of plate from his fellow-pharmacists if he succeeds.]

114/65. *S. J. N. T.*—You cannot legally sell orange wine unless you hold a sweets licence.

R. M. (10/119) refers to a formula published in this journal for *Herb-beer Essence*, in which, among other ingredients, was sp. vini rect. 3ij. in a pint. He modified the recipe, substituting tinct. zingib. fort., 3ij. in a pint, and has sold it, but subsequently noticed in *THE CHEMIST AND DRUGGIST* the following note to a correspondent:—"Two per cent. of proof spirit is the largest amount which is allowed to go duty free. This rule holds good whether the alcohol is produced in the beverage by fermentation, or whether it is added to it as a preservative." *R. M.* asks, therefore, whether "*Herb-beer Essence*" would be regarded as a beverage. If so, the proportion of S.V.R. would be equal to about 16 per cent. proof spirit. [We do not think there is any doubt that the sale of spirituous preparations, essences, and the like for the preparation of beverages, which are not *bonâ fide* medicines, requires a spirit dealer's licence, the manufacture of the same needing besides a compounder's licence. It might be claimed that herb beer is a medicine and not a beverage, but we should doubt whether such a defence would be a very reliable one in the event of an excise prosecution.]

46/117. *Lincolnshire*.—It is impossible for us to say on which side of the line the Board would regard your preparation after reading your advertisement. The statement that "it is largely prescribed in all cases of," &c, seems to us very like recommending it in those specific cases. The last paragraph of your advertisement also approaches a specific recommendation. But it would be dangerous for us to advise confidently when you have chosen to go so near the edge of the precipice.

38/116. *Syr. Ferri*.—Yes; an unregistered person may advertise on handbills "prescriptions dispensed," but it will be illegal for him to dispense them if they contain any scheduled poison. He may also advertise "advice given free of charge," but if he give medical advice he may render himself liable to a prosecution by the Apothecaries' Society.

11/117. *Liverpudlian*.—If, as we presume, you were engaged at a weekly salary, your engagement can be terminated by notice of one week. The fact that payment has been sometimes or even often in arrears would not affect the matter.

6/117. *Trade-marks*.—There is no possibility that any Court would regard the one trade-mark as an imitation of the other.

MISCELLANEOUS INQUIRIES.

Books.

116/65. *A. P. N.*—Major Manuals.—Botany: Bentley's "Manual" (Churchill; 15s.); or the smaller work (Structural and Morphological, 7s. 6d.), with Prantl and Vines' book. Materia Medica: "Pharmacographia" (Macmillan; 21s.); or Wills's "Manual" (Simpkin, Marshall; 10s. 6d.). The former is classic and interesting reading; the latter more recent and better adapted for examination work. Chemistry: Attfield and Fowne's (Inorganic and Organic); or Muter's "Theoretical and Practical." You may get cheap copies of any of these through the Exchange column.

Jeroboam.

In reply to *Heder* Mr. E. G. Hughes (Gloucester) sends the following formula for the above-named preparation:—

Rad. rhei	3j.
Fol. sennæ	3j.
Sem. cardamomi	3j.
Croc. placet.	3ij.
Cocci cacti	3vij.
Ol. anisi	3j.
Spt. tenuior	lb. v.

Macerate in the usual way.

Dose: 3j. to 3ss.

117/62. *Chemicus* (Dublin).—Glycerine in the proportion of one part to three will preserve most Concentrated Infusions. See the article on the subject in the "Art of Pharmacy," where the most troublesome infusions are mentioned.

240/2. *T. T.* wishes to know how butter may be made to separate hard.

114/65. *S. J. N. T.*—Tartarilene is sold at about 70s. a cwt. by wholesale grocers.

118/36. *A Friend*.—You will find a formula for self-raising flour in our issue for May 28. We never heard of hyposulphite of potash being used for salines, but chlorate of potash is used.

118/24. *T. C. H.*—The label which you send is made of manila hemp. Its toughness and apparent waterproof properties are due to the superior character of the material. Dextrin mucilage with a little alum in it is used for the rings.

116/72. *E. S.*—Lemon Squash.—Make a tincture by digesting the yellow peel of six dozen fresh lemons in 3 pints of water and 5 pints of rectified spirit for a week. Strain, press, and filter. Make a syrup from this tincture according to the following formula:—

Citric acid	4 oz.
Tincture of lemon peel	8 "
Essence of musk	5 drops
Simple syrup to	1 gallon

The citric acid may be dissolved in the syrup while it is hot. Add the other ingredients when cold. Six fluid drachms of this syrup is sufficient for a bottle of lemon squash.

119/7. *H. Davy*.—See index.

118/23. *W. Browne*.—Cod-liver oil stains in clothes should be treated like other oil stains—viz. with benzine. If they require washing, use a washing fluid. See index for formulæ. Oak varnish is used as a medium for painting on glass.

Lincolnshire.—Dandelion Coffee is simply dandelion root roasted and ground. Some kinds of it contain ordinary coffee and unroasted dandelion. It is dutiable.

119/15. *Cardams*.—Please consult the index for formulae for children's remedies. The following formula for *Inseparable Milk of Roses* was given in this journal June 5, 1886.

W. & G.'s white glycerine soap	3ss.
Cold cream	3j.
Distilled water (tepid)	3xxxij.
Otto of rose	gr. xxx.
Rectified spirit	3j.

Shave the soap into fine shreds, and dissolve it in 2 oz. of the water by the heat of a water bath. Transfer to a mortar, and incorporate the cold cream (liquefied) with it; gradually add the rest of the water, stirring constantly and dexterously. Transfer to a bottle, and when cold add the otto dissolved in the spirit.

The following formula is said to be better:—

Almonds	8 oz.
-----------------	-------

Blanch, and beat well up; then add 30 oz. of rose water slowly, so as to form a perfect emulsion. Strain through fine muslin, and reserve. Next prepare the following mixture:—

	Oz.
Hard soap	½
White wax	½
Spermacti	½
Rose water	2

Cut the soap into shavings, and dissolve in the rose water by the aid of a water-bath. Add the wax and spermacti, and when melted pour the mixture into a warm mortar, and incorporate with it the almond emulsion, adding towards the end 30 drops of otto of rose dissolved in 2 oz. of rectified spirit.

38/116. *Syr. Ferri*.—Himrod's Cure is said to be imitated by a mixture of equal weights of powdered lobelia, stramonium, black tea, and nitrate of potassium, with the addition of a little aniseed or fennel.

239/19. *W. H. L.*—The fire-eating experiment was described in our issue of December 4, 1885, page 733. A dilute solution of ammonia is used for washing the hands before fire-eaters handle molten metals. The protection afforded by the ammonia is due to the formation of a layer of ammoniacal vapour round the skin, the condition being analogous to the phenomenon known in caloric as the spheroidal state.

117/10. *T. P. P.*—You may get the wooden blocks for packet-making from any druggists' sundriesman, and any local joiner could make them for you. We cannot give you any definite formula for mixing moist paints. Painters go by rule of thumb. The finished paint should be about the consistency of cream. One ounce and a half of dryer is used for each pound of white lead. Paints are thinned with equal parts of turpentine and boiled linseed oil.

E. L. R.—The ranunculus which you have sent wants the flower. Please send a better specimen.

238/31. *J. J. B.*—The Powder for the Feet has a composition which is fairly represented by the following formula:—

Fuller's earth	3j.
Powdered starch	3ij.
Boric acid	3j.
Powdered orris	3j.

M.

118/50. *H. S. F. B.*—It was Miers who separated the groups of plants named into *Solanaceæ* and *Atropaceæ*. The difference between them is very slight, and they are now generally placed together under *Solanaceæ*. The *Atropaceæ* differ from *Solanaceæ* in the plants having imbricated aestivation, and the anthers being extrorse or introrse, and always dehiscing longitudinally.

Peat Moss.—In reply to a query regarding this substance *Mr. William Lawson* (Bellshill) states that "it may be obtained from Mungo Gray & Co., 104 Hope Street, Glasgow,

or from the Thurm & Schmidt's Moss Litter Co., Baltic Chambers, Quayside, Newcastle-on-Tyne. The latter advertise for sale the German moss; the former do not specify the source, but doubtless a supply from any part could be obtained either from or through them.

"Though not of direct pharmaceutical interest, I may be allowed to add that this substance possesses great absorbing powers; indeed, in one sense there appears to be scarcely a limit to what it may be compelled to accomplish in this direction. Scotch moss will take up by soaking and drying much more than twenty times its weight of cow's urine. The moss, after being thus treated, is rich in substances of manurial value, and is readily reduced to a fine powder."

117/22. *Inquirer*.—The Storm-glass Composition is made from camphor, 3ij.; nitrate of potash, 3iss.; chloride of ammonium, 5j.; proof spirit, 3xviiij. A formula for liquor opii sedativus was recently given. Consult the index.

Beral's Elatine.—In reply to 93/29, a Continental correspondent tells us that, according to Deschamps, the following is the composition of Beral's Elatine:—Norway tar, 20; boiling water, 1,000. Pour the water on the tar; set aside; filter when cold. Original bottles, about $\frac{3}{4}$ litre, sell at 2.50f.

The same correspondent tells 107/44 that cascara dragées are made by Desmazière, Avenue Villiers, Paris, and cascara pills by M. Midy, English chemist, Faubourg St. Honoré, Paris.

Trade Report.

Note to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., June 23.

THE Jubilee celebrations have rendered this week a quiet one in the chemical and drug markets, and there are few changes of any importance to be noticed. Such as there are of these have been influenced mainly by the hot weather, which now seems to have set in for good. The advance in citric acid, which we had to record last week, has been maintained, maker's price now being 1s. 9d., and that firm; some business at 1s. 8 $\frac{1}{2}$ d. has been done. Tartaric acid is also in a firm position, although there have been fairly large arrivals of tartar materials during the week. Neither the acid nor cream of tartar have changed their positions so far as price is concerned, but the indications are that the prices will not go down while the hot weather lasts. Oxalic acid is firm but unchanged in price. Bleaching powder has not altered, but chlorate of potassium is firm and scarce at 6 $\frac{1}{2}$ d. The magnesia process for the manufacture of chlorate, as now worked at Muspratt's factory in Widnes, promises to save much of the waste which has hitherto helped to keep up the price of the salt, and it may be expected that that condition of things will no longer obtain. In this process chloride of magnesia is obtained as a valuable by-product instead of valueless chloride of calcium as in the old process. Sulphate of ammonia and other ammonia salts remain at the prices quoted last week. In the sulphate a fair volume of business has been done, and the market is firm.

The oil market is a very dull one, and prices generally are unaltered. Linseed oil is now obtainable for 22l. for spot. There was a weak tendency in rape oil when we last reported, and it continued for a few days, but towards the end of last week matters improved, and the prices still stand at the figures last quoted, viz., 23l. to 23l. 5s. for brown, and 24l. to 24l. 15s. for refined on spot. For castor-oil there are few inquiries at nominal values. Cotton-seed oil is firm at old prices for spot. Palm oil is quiet and unaltered, and olive oil very slow of sale. Spirit of turpentine is inclined to be dearer, but is still obtainable at the last quoted prices for spot.

At the spice sales on Thursday last the demand for pepper was somewhat brisk, and nearly 1,500 packages of Acheen black changed hands. These packages were put up without reserve, and sold at 5 $\frac{1}{2}$ d. to 5 $\frac{5}{8}$ d. for low dusty, and from 6 $\frac{1}{4}$ d. for the better kinds. 600 bags of Singapore were offered and sold at from 7 $\frac{3}{8}$ d. to 7 $\frac{1}{2}$ d. White pepper is not altered in price, but is decidedly firmer, and owing to the continued adulteration of the article by some grinders, and the expected discovery of those directly implicated, higher prices for both black and white pepper may be expected. We call attention to an article on this subject on another page. Nutmegs sold firmly, and the same may be said of mace.

Since Saturday last a considerable number of cases of opium have been disposed of, fully 150 going to the United States, and the market closes at higher rates. Inferior qualities are selling at 14s. 6d. to 15s. 6d., and the better qualities command from 18s. to 20s. per lb. Morphia is daily expected to advance. Higher prices are expected for quicksilver, which is now selling at 6l. 11s., owing to the fact that the Rothschilds are not selling.

AMERICAN CABLEGRAM.

NEW YORK, June 23.

QUININE is decidedly dull, and the few transactions which have been made are at old prices, which are maintained with difficulty.

SARSAPARILLA.—Heavy arrivals of *Mexican V.C.* have come on this market.

NERVOUS PATIENT (in dentist's chair)—"Will it hurt much, doctor?" Dentist (reassuringly)—"I'll guarantee it won't hurt a bit." Nervous Patient (not convinced)—"But what if it should, doctor? What would your guarantee amount to?" Dentist (evidently sure of himself)—"If I hurt you, my dear sir, I'll pull every tooth in your head, and it won't cost you a cent."

MUMMY SEEDS.—Statements have been made at various times that the seeds found in ancient Egyptian tombs have germinated, but it is pointed out by Mr. George Murray in *Nature* that competent botanists have universally condemned as worthless the evidence given in support of the alleged germination of mummy seeds. For example, the mummy wheat of one well-known traveller grew up as oats! a plant which was unknown to the ancient Egyptian, but which is now cultivated in the country. The Arabs are understood to mislead travellers.

A RESIDENT of Philadelphia bought a box of pills and placed it in the tail pocket of his coat. He had forgotten about the pills while enjoying himself in the woods last Sunday, and the rattling of the pellets in the box produced a sound that he mistook for the rattle of a snake. As he was about to run, a large shepherd dog caught him by the pantaloons, and to release himself he made the animal sick with a club, for which he was arrested and fined on complaint of the owner of the dog. He will never carry pills in his coat-tail again.—*O. P. and D. R.*

Telephone No. 7525.

Telegraphic Address :
"IODINE-LONDON."

Fletcher, Fletcher & Stevenson



NORTH LONDON CHEMICAL WORKS,



Holloway, London, N.

MANUFACTURERS OF PURE PHARMACEUTICAL CHEMICALS.

Pepsina Porci.

Pepsine prepared from the stomach of the pig, by Scheffer's Process. We are amongst the largest makers of Pepsine, and our brand will be found equal to the higher priced makes.

Pepsina Pur., P.B.

This preparation, prepared strictly in accordance with the requirements of the P.B., is guaranteed free from any admixture whatever.

Essential Oil Almonds.

Chemically free from all traces of Prussic Acid.

20/- per lb.

Essence of Lemon.

We import direct, and shall be glad to submit samples and quotations of the finest selected Oil.

Acid Carbolic, P.B.

(Pure White Crystals.)

Answers all the B.P. Tests. Special Prices for bulk or in 1-lb. bottles.

Extracts, Decoctions, &c.

Evaporated *in vacuo*, at a low temperature, whereby the active principles are represented in the highest degree, and all risk of deteriorating influences absolutely avoided.

Special Quotations for Quantities.

The Chemische Fabrik auf Actien, vormals E. Schering, Berlin,
MANUFACTURERS OF SCHERING'S
PURE CHEMICALS

PARTICULARLY OF

ACID, GALLIC - - - -	Almost white needles ... - -	Freely and entirely soluble in alcohol or water.
" PYROGALLIC - - -	Bi-sublimed, white, bulky ... -	Ditto ditto ditto.
" SALICYLIC (Kolbe's)	White, powder, crystallised, and dialysed	Dissolves colourless in water or alcohol, purest for medicine.
" TANNIC - - - -	Lightest crystals ... - - -	Dissolves almost colourless in water, alcohol, and ether.
" " - - - -	Powder and granulated ... - -	Dissolves freely in water, alcohol, and ether
CELLOIDINE (Patent) - -	Gelatine plates ... - - -	Purest Pyroxylin; inexplosive.
CHLORAL HYDRATE - -	White cake and crystal ... -	See Liebreich's, below.
CHLORAL HYDRATE (Liebreich's)	Transparent rhomboidals (facsimile of Dr. Liebreich's)	Will not decompose by age.
CROTON CHLORAL - - -	Shiny crystalline scales. (Powder form most objectionable)	Free from foreign chlorides.
GLYCERINE - - - -	S.G. 1260, double distilled, brilliantly white, odourless; also lower S.G. and qualities	Free from lime, chlorides, metals; will stand severest chemical tests.
IODINE - - - -	Resublimed, fine scales ... -	Purest.
IODOFORM, Absolut. - -	Crystals and powder of soft touch ...	Purest; made by electrolysis.
PARALDEHYD ... - - -	... - - - -	Absolutely purest.
POTASS. BROMIDE ... - -	Fine white dry regular crystals	Perfectly free from iodide, and the most free from chloride.
" PERMANGANATE	Large and small crystals ... -	Chemically pure.
" IODIDE - - - -	Fine white dry regular crystals	Apply Barytic and other tests. This will never change colour.
SODA SALICYLATE, and other Salicylates	White powder and crystals ... -	Freely soluble in water and alcohol.

H. FINZELBERG, of Andernach-on-Rhine.

ERGOTINE, pure Dialysed ...	Brown colloid, purified by Dialysis	Free from all saline matter present in the ordinary Ergotine and extracts.
FERRUM OXYD. (5% Dialysed)	Transparent brown liquid, purified by Dialysis	Free from all saline matter. Diluted by ten times its weight of water, will stand the test of Nitrate of Silver.
PEPSIN PORCI (100%) ...	White, sweet, odourless powder -	Freely soluble in water, not hygroscopic, and will not deteriorate; will dissolve (by Wittstein's test) 100 parts of white of egg and 250 parts of fibrine.

CONRAD ZIMMER, of Frankfurt-on-the-Main.

QUININE, Sulphate ... - - -	Whitest and most bulky crystals ...	Utmost purity warranted.
" Muriate ... - - -	" " " ...	" " "

SOLE WHOLESALE AGENTS—

A. & M. ZIMMERMANN, 27 MINCING LANE, LONDON, E.C.*For Quotations, &c., apply to Wholesale and Export Drug and Chemical Houses.*

GOLD MEDALS,
INTERNATIONAL INVENTIONS EXHIBITION, LONDON, 1885.
INTERNATIONAL EXHIBITION, PARIS, 1885.
INTERNATIONAL EXHIBITION, LIVERPOOL, 1886.

IMPROVED HIGH TEST
BICARBONATE OF SODA,
SODÆ BICARB. PULV.

CRYSTAL CARBONATE

The Best Preventative of Boiler Incrustation, and the **PUREST**
and **CHEAPEST** form of

SODA CRYSTALS.

20 cwts. of Crystal Carbonate contains as much Alkali as 48 cwts.
of Soda Crystals.

Price of 20 CWTs. of
CRYSTAL CARBONATE,
F.O.R. WIDNES,
£5 1s. 6d.

Price of 48 CWTs. of
SODA CRYSTALS
(At £2 15s. per ton),
F.O.R. WIDNES,
£6 12s. 0d.

GASKELL, DEACON & CO.,
WIDNES, ENGLAND.

BURGOYNE, BURBIDGES, CYRIAX & FARRIES, WHOLESALE & EXPORT DRUGGISTS,

MANUFACTURERS OF EVERY DESCRIPTION OF

CHEMICAL, PHARMACEUTICAL, PHOTOGRAPHIC,
AND OTHER PREPARATIONS,IMPORTERS & DISTILLERS OF ESSENTIAL OILS,
16 COLEMAN ST., LONDON, E.C.

PRIZE MEDALS—PARIS, 1867; PARIS, 1878; CALCUTTA, 1884; EDINBURGH, 1886.

CALL ATTENTION TO THE FOLLOWING NEW PREPARATIONS:—

Absynthine
Aceto-Acetic Acid
Acid Hippuric
,, Osmic
,, Sclerotic
Adonidine
Agaricine
Amylovalerianic Ether.
Antifebrin (Acetanilide)
Apiol
Arbutine
Aseptol (Sulphocarboic Acid
33%)
Avenine
Caffeine Sodium Benzoate
,, ,, Salicylate
Calcium Hippurate
,, Santonate
Cannabin Tannate
Cocaine
,, Hydrochloride
Colchicēin
Conessine
Convallamarine
Cotoine (true and para)
Duboisine Sulphate

Eserine Sulphate (Bromide,
Salicylate, &c.)
Ethoxycaffeine
Eucalyptol
Homatropine Hydrobromide
Hyoscyamine (Amorph. and
Cryst.)
Hyosine Hydrobromide,
Hydriodide, and Hydro-
chloride
Hypnone
Ichthyol and Sulphoich-
thyolates
Iodol (Tetraiodopyrrol)
Kairin | Keratine
Lantanine
Lithium Hippurate
Mercury Tannate
Naphthalene
Naphthol (Beta)
Papaine
Paraldehyde
Pelletierine
,, Tannate
Phenylhydrazine
,, Hydrochloride

Pilliganine
Pilocarpidine
Piperine
Piscidine
Potassium Osmate
Pyridin
,, Sulphate
Quinolin
,, Tartrate
Resorcin
Rotoine
Salol
Scopoleine
Sodium Hippurate
Sparteine
,, Sulphate
Terebene (Burgoyne's)
Terpin Hydrate
Terpinol
Thallin
,, Sulphate
Tincture Strophanthus
Urethane
Vanilline Cryst. and Powder
Xasmine—new basis for
Ointments

JAMES WOOLLEY, SONS & CO.,

Drug Millers, Wholesale and Export Druggists,
AND
MANUFACTURING · PHARMACEUTICAL · CHEMISTS.

~ SPECIALITIES. ~

Spirit of Nitrous Ether.
Guaranteed of Official Strength.

Aromatic Spirit of Ammonia.
Distilled from Volcanic Ammonia.

Assayed Opium, Cinchona, and Scammony,
Their Powders and Preparations.

The "Extra Pale" Cod Liver Oil.
Free from fishy odour. Unchanged at 32° F.

Dalmatian Insect Powder.
From Unopened Flowers, free from added colouring matter.

Tasteless Coated Pills.
Soluble in cold water.

Pure Crushed Linseed.
Ground from Screened Seed.

Pure Yellow Beeswax, in Bars.
M.P. 149° F.

Soluble Essences of Ginger, Lemon, &c.,
For flavouring Aërated Waters.

Emulsified Cod Liver Oil.
With Hypophosphite of Lime.

Minerolin (Mineroleum).
A pure Hydro-Carbon Ointment Basis.

Levigated Ointments
By Steam Power.

DEALERS IN DRUGGISTS' SUNDRIES.

CHEMICAL AND PHARMACEUTICAL APPARATUS AND SURGICAL INSTRUMENTS.

PROPRIETORS OF

"The SANITARY ROSE POWDER," the "BOVAL" TOILET PREPARATIONS, &c.

Drugs and Chemicals Ground for the Trade.

Warehouse and Offices: 2 & 4 Swan Court, Market St.; Laboratories and Drug Mills: Knowsley St., Cheetham,

MANCHESTER.

Prices Current and Catalogues on demand. Special quotations to large buyers. Telegrams—"PHARMACY MANCHESTER."

BURGESS, WILLOWS & FRANCIS,

Wholesale & Export Druggists

AND

MANUFACTURING PHARMACEUTICAL CHEMISTS

WHITE HORSE BUILDINGS,

101 HIGH HOLBORN, LONDON.

ESTABLISHED 1751.

DRUGS, CHEMICALS, AND PHARMACEUTICAL PREPARATIONS.

PRICE LISTS ON APPLICATION.



AWARD of MERIT

OF THE

International Medical & Sanitary Exhibition, South Kensington,

FOR

W. F. W. ECKELL'S

MALT EXTRACT

MANUFACTURED FROM THE BEST NORWEGIAN MALTED BARLEY, AND
PREPARED IN VACUO.

Extract from Analyser's Report of ECKELL'S MALT EXTRACT.

PROTEIN	4.48 per cent.
ASH	1.35 "
(Of which Phosphoric Acid, 0.49 per cent.)	
MALTOSE	63.83 "
DEXTRIN	4.85 "
INDISSOLUBLE INGREDIENTS... ..	0.09 "
SUM TOTAL OF EXTRACT SUBSTANCES	74.60 "
WATER	25.40 "
	100.00

According to another Analysis—

The Malt Extract contained ...	78.24 per cent. Extract.
and ...	21.76 " Water.
	100.00

In none of the Specimens that were analysed could any foreign substance be discovered. JAC. G. OTTO,

Amanuensis at the Physiological Institute.

Christiania, June 27, 1881.

R. CLARK NEWTON, Esq., M.R.C.S., Engd., and Lic.
Med. and M.C., Durh., says:

"I have for some time recommended the Norwegian (Eckell's) Extract of Malt, and I have been much pleased with its agreeable and efficacious qualities. I am induced to regard it as superior to any in the market."

SOLD BY ALL CHEMISTS AND DRUGGISTS, AND WHOLESALE OF
MESSRS. JONES & BOWLES, KENSINGTON, LONDON, W.

London International and Universal Exhibition, 1884, Gold Medal Awarded for our Pharmaceutical Preparations.
Calcutta Exhibition, First-class Certificate and Two Prize Medals Awarded for our Pharmaceutical Preparations.

HEWLETT'S

LIQUOR SANTAL FLAV. c. BUCHU et CUBEBA

THE ORIGINAL PREPARATION.

Price (in England) 10s. 6d. per pound, packed (for Dispensing only) in 10-oz., 22-oz.,
40-oz., and 90-oz. Bottles.

HEWLETT'S "PERMANENT" LIQUOR FERRI IODIDI.

LIQUOR EASTONI (HEWLETT'S).

SYRUP EASTONI (HEWLETT'S).

C. J. HEWLETT & SON, *Manufacturing and Pharmaceutical Chemists,* **LONDON, E.C.**
40, 41, & 42 CHARLOTTE ST.,
ESTABLISHED 1832.

Physicians will oblige, when ordering Liq. Santal Flav. cum Buchu et Cubebâ, by writing "Liquor Santal Flav. c. Buchu et Cubebâ (Hewlett's)."

S. MAW, SON & THOMPSON'S MEDICINAL GELATINE CAPSULES

	Per dozen		Per dozen.		
			Containing		
			30	36	48
Castor Oil, in square boxes	5/-	In oval screw-cap bottles	5/6	—	8/-
Cod Liver Oil, in square boxes	7/-	Ditto ditto	—	8/-	—
Copaiba, without Name, in oval boxes	4/9	Ditto ditto	5/6	—	8/-
Copaiba, with or without Name, best, in oval boxes	5/9	Ditto ditto	6/6	—	9/-
Copaiba, Flexible, in oval boxes	6/-	Ditto ditto	6/9	—	9/6
Copaiba, Flexible, larger, in oval boxes	8/-	Ditto ditto	—	10/-	—
Copaiba and Cubeb, in square boxes	9/-	Ditto ditto	—	11/-	—
Copaiba, Cubeb, and Buchu, in oval boxes	8/-	Ditto ditto	—	10/-	—
Copaiba, Cubeb, and Sandal-wood Oil, Flexible, in oval boxes...	17/-	Ditto ditto	17/-	—	25/-
Oil of Male Fern (18 drops), in square boxes	17/-	Ditto ditto	—	18/-	—
Sandal-wood Oil, Flexible, English, in round boxes	26/-	Ditto ditto	—	30/-	—
Sandal-wood Oil, Flexible, Foreign, in round boxes	20/-	Ditto ditto	—	23/-	—
Tar, Norwegian, in square boxes... ..	6/-	Ditto ditto	—	7/-	—
Terebene, pure (10 drops), in round boxes	12/-	Ditto ditto	13/-	—	20/-
Turpentine, in square boxes	6/-	Ditto ditto	—	7/-	—

SPECIAL QUOTATIONS TO WHOLESALE BUYERS.

S. MAW, SON & THOMPSON, LONDON.

The following is respectfully commended to the
Notice of Exporters:—

**FOWLER'S
CORN, BUNION, & CHILBLAIN
PLAISTER,**

PRICE 1s. 1½d. PER BOX, [2]

Has been extensively used in Royal and distinguished circles for over half a century, still maintaining its pre-eminence against all competition.
Relief immediate, cure certain, and comfort, however tight the boot.

W. F. SMITH, M.P.S.,
280 WALWORTH ROAD, LONDON.

ORDERS FROM ABROAD EXECUTED THROUGH SHIPPERS.

**STEINIGER & CO.,
DRUG AND SPICE
MERCHANTS,**

9 MINCING LANE, LONDON, E.C.

**SPECIALITY:
Demerara Burnt Sugar.**

TELEGRAPHIC ADDRESS—"DRUGSTERS LONDON."

F. SCHUTZE & CO.

CHEAPEST HOUSE FOR

BATHING CAPS

AND SPONGE BAGS.

PLAIN AND FANCY PATTERNS IN GREAT VARIETY.

PRICES ON APPLICATION TO

9 SOUTH ST., FINSBURY, LONDON, E.C.



TRADE MARK.

WITHOUT A RIVAL!

From the time Medicine was first discovered by the Ancients down to the present none ever made such progress as

BEECHAM'S PILLS.



They stand without a rival, and have by far the largest sale of any Patent Medicine in the World. This is a fact which every business man is bound to admit.

All Foreign Dealers will find BEECHAM'S PILLS the most Saleable Medicine in the Market.

The health-restoring and life-giving properties of these Pills are such as to increase their demand every year.

The words "BEECHAM'S PILLS, SAINT HELENS," are on the Government Stamp affixed to each box.

Prepared only and sold by the Proprietor, **THOMAS BEECHAM**, ST. HELENS, LANCASHIRE, ENGLAND, in boxes at 1s. 1½d. and 2s. 9d. each, with full instructions for use.

EXHIBITED AT THE
AMERICAN EXHIBITION,
LONDON, 1887.

OVOID CAPSULED PILLS

(Of the British Pharmacopœia and other Standard Authorities).

Originated 1870 by **McKESSON & ROBBINS**, NEW YORK, U.S.A.
LONDON AGENCY—Messrs. **S. MAW, SON & THOMPSON**, 7 to 12 Aldersgate St., E.C.;

And can be had also of Messrs. **BURROUGHS, WELLCOME & CO.**, SNOW HILL BUILDINGS, LONDON, E.C., and Messrs. **HOCKIN, WILSON & CO.**, 38 DUKE STREET, MANCHESTER SQUARE, LONDON, W.; and the Principal Wholesale Houses in the Trade throughout Great Britain and Ireland.

Reference to the Gelatine-Coated Pills originated by **McKesson & Robbins**, 1870.

"The process of coating the McK. & R. pills with gelatine not only takes away the disagreeable appearance, odour, and taste, but forms an hermetical coating about the medicine, protecting it from atmospheric moisture, and thus preventing deterioration. This fact enables one to purchase them in large quantities without fear of change of their composition. They are not affected by climate, changes in temperature, or variations in the hygrometric conditions of the atmosphere; and drugs, which otherwise oxidise rapidly, may be preserved in this state for years. The gelatine coating is perfectly transparent and very thin, so that it requires but half a minute in the mouth to dissolve it. Being of ovoid shape, they do not resemble ordinary coated pills; they are swallowed with the greatest ease where the above mentioned are rejected. The slippery character which the coating assumes after having been taken into the mouth renders the pill almost imperceptible to the sensitive mucous membranes of the soft palate and fauces, and this we think contributes greatly to the ease of administration."—Portion of article on "The Secret of Homœopathic Success," reprinted from the *Obstetric Gazette*, U.S.A.

MUSEUM, BRITISH MEDICAL ASSOCIATION, Brighton Meeting, 1886.

"The quality of the masses in the 'McK. & R.' capsuled pills, as exhibited through a lens which magnified the interior of the pills (containing mineral salts) twenty diameters, gave ocular demonstration of careful laboratory work."—*British Medical Journal*, Sept. 4th, 1886.

The preference for Ovoid Capsuled Pills is increased by microscopical and chemical, as well as therapeutical, tests of quality. We most earnestly and respectfully request you to specify "McK. & R." on all orders.

Terms to the Trade and Revised List of Formulas mailed Free on application.

Private Formulas of 3,000 or more Pills made and capsuled to order for Hospitals and large consumers at special quotations.

ADDRESS: **S. MAW, SON & THOMPSON**, 7 TO 12 ALDERSGATE ST., LONDON (The London Agency).

LINT.

TAYLOR'S
Super A I Flax Lint,
3s. 8d. per lb.

MAW'S
Super Quality Surgeons' Lint
2s. per lb.

MAW'S
Superior Hospital Lint,
1s. 9d. per lb.

MAW'S
No. 2 Hospital Lint,
1s. 6d. per lb.

SPECIAL QUOTATIONS TO LARGE BUYERS.

S. MAW, SON & THOMPSON, LONDON.

EGYPTIAN LOOFAHS
OF VERY SUPERIOR QUALITY.

Assorted Sizes, from 12 to 15 inches inclusive—

2/6 PER DOZEN.

Assorted Sizes, from 16 to 18 inches inclusive—

3/6 PER DOZEN.

S. MAW, SON & THOMPSON, LONDON.

BUYERS ARE CAUTIONED TO SEE THAT THEY GET THE
GENUINE



DR. JOHN HOOPER'S PILLS,

Which may be known by the Name of the Inventor being on the Government Stamp.

Handbills and Show Cards will be sent on application to

MAY, ROBERTS & CO., 9 CLERKENWELL ROAD, LONDON, E.C.

AMERICAN BUYERS are particularly Cautioned!!

Telegraphic Address—"FEEDING BOTTLES LONDON."

Trade Notice.]



[Trade Notice.

ATKINSON & BARKER'S ROYAL INFANTS' PRESERVATIVE.

Established by 90 years' experience as a safe and effective Medicine.

Sold universally by Chemists and Patent Medicine Dealers.

WHOLESALE AND EXPORT ORDERS SUPPLIED FROM THE MANUFACTORY—

11 RUSSELL STREET, DOWNING STREET, MANCHESTER.

SHOW CARDS AND BILLS ON APPLICATION.

ACID. ACETIC., B.P., ACID. ACETIC. 1·040. Guaranteed made from Soda.

PEROXIDE of HYDROGEN, for Bleaching Feathers, Hair, Silk, Jute, Ivory, Bone, &c.

CRETA PRÆCIP. Very White, Soft, and Light.

PHOSPHORIC ACID, B.P. strength and concentrated, Pure and Free from Arsenic.

LIQ. FERRI PERCHLOR. FORT., B.P. Free from Arsenic, and Soluble in Spirit.

HYPOPHOSPHITES of LIME, SODA, &c. CYANIDE of POTASSIUM.

Ferri et Ammon. Cit., Ferri et Quinæ Cit., B.P., and other Scale Preparations.

DUNN & CO., Stirling Chemical Works, WEST HAM, LONDON.

MORRIS & CALLARD,

PONTAMMAN CHEMICAL WORKS,

AMMANFORD, R.S.O., CARMARTHENSHIRE,

MANUFACTURERS OF

ACETIC ACID, P.B., ACETIC ACID FORT, SP. GR. 1·040,

ACETATE OF SODA,

NAPHTHA, SULPHURIC ACID, AND CHARCOAL.

PRICES AND SAMPLES ON APPLICATION.

WYLEYS' GELATINE COATED OVAL PILLS.

The only Gelatine Coated Oval Pills of ENGLISH MANUFACTURE in the Market. Special List of REDUCED PRICES on application.

POWDERED DRUGS. All ground in our own Mills, and of Guaranteed Purity.

EXTRACTS (ENGLISH).

CONCENTRATED INFUSIONS AND DECOCTIONS. **GRANULAR EFFERVESCENT PREPARATIONS.**

GELATINE COATED HORSE BALLS (PATENTED).

Forwarded on application {PRICES CURRENT, LIST OF SPECIALITIES, PILL LIST (GELATINE OR PEARL COATED).

WYLEYS & CO., COVENTRY.

LONDON ADDRESS—1a BURY STREET, ST. MARY AXE, E.C.

DUNCAN, FLOCKHART & CO.,
WHOLESALE AND EXPORT DRUGGISTS, EDINBURGH.

CHLOROFORM,

Prepared from Pure and Methylated Spirit.

Put up in all sizes of bottles. A strap with Name and Trade Mark of the Firm is placed over the stopper of each bottle. For Export, in bottles corked and luted (stoppers attached), and in hermetically sealed flasks when required.

N.B.—We guarantee our Chloroform prepared from METHYLATED SPIRIT to be PURE CHLOROFORM, answering all the tests of the British Pharmacopæia.

CASCARA SAGRADA CAPSULES,

In Boxes, at 1/6 and 2/6. 14/- and 24/- per dozen.

Each Capsule equal to half a teaspoonful of Fluid Extract of Cascara Sagrada. The chief drawback to the use of this valuable drug, its unpleasant bitterness, is obviated when taken enclosed in Capsules.

Bulk Oil in Barrels and Winchestersters.

JENSEN'S COD LIVER OIL,

ICEBERG BRAND, in Bottles, 1/, 2/, 3/6, and 6/6.

Made at the Company's own Factory in BRETTESENES, LOFODEN ISLANDS, NORWAY, the largest and the best equipped Factory in the World. All the Oil made by Jensen is passed through a refrigerating chamber, and is guaranteed to keep bright and clear with 7 or 8 degrees of frost. Bulk deliveries can be made in Bergen, Hamburg, or London.

HERTZ & COLLINGWOOD, 101 Leadenhall Street, LONDON, E.C.

Sole Agents and Bottlers for Jensen's Cod Liver Oil (Iceberg Brand).

MORISON'S PILLS, POWDERS AND OINTMENT.

The most Safe, Efficacious, and Prompt **VEGETABLE MEDICINE** for Family Use.

COMPOUNDED OF THE PUREST VEGETABLE INGREDIENTS ONLY.

FIFTY-FIVE YEARS OF UNINTERRUPTED SUCCESS.

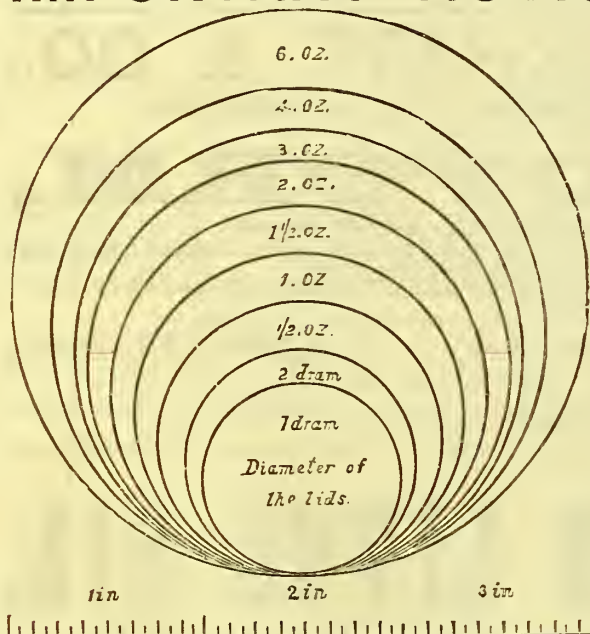
Pills in Boxes at 7½d., 1s. 1½d., 2s. 9d., 4s. 6d., and 11s. Powders, 1s. 1½d. Ointment, 1s. 1½d. and 2s. 9d.

Wholesale: BRITISH COLLEGE OF HEALTH, 33 Euston Road, London;
And of the Principal Chemists and Druggists throughout the Kingdom.

ENGLISH-MADE WILLOW BOXES.

EVERY BOX WARRANTED.

IMPORTANT NOTICE TO THE TRADE.



Having had inquiries from all parts of the Kingdom for our Boxes, we are encouraged to push the Sale of them still more, and to enable users to give them a thorough trial, we are prepared for this month to forward

CARRIAGE PAID

to any part of the country on receipt of

POSTAL ORDER for TWENTY SHILLINGS

an assorted Case of our **English Willow Boxes** as under. The sizes given are the most useful, but the assortment can be modified in any way our clients wish, providing the value (20/-) is taken.

CONTENTS OF STOCK CASES.

2 gross	$\frac{1}{2}$ oz.	Extra cut down English Willow Boxes, to hold	2 dr.	...	s.	d.	...	s.	d.
3	"	$\frac{1}{2}$ oz. cut down	3 dr.	...	0	10	—	1	8
6	"	1 oz.	"	"	0	11	—	2	9
2	"	$1\frac{1}{2}$ oz.	"	"	0	11	—	5	6
1	"	$\frac{1}{2}$ oz. deep	"	"	1	2	—	2	4
1	"	1 oz.	"	"	1	0	—	1	0
1	"	$1\frac{1}{2}$ oz.	"	"	1	2	—	1	2
1	"	2 oz.	"	"	1	4	—	1	4
1	"	3 oz.	"	"	1	6	—	1	6
$1\frac{1}{2}$	"	4 oz.	"	"	2	0	—	1	0
	"	"	"	"	2	6	—	1	3
	"	"	"	"	—	—	—	0	6
Packing Case ...					...
18 gross assorted ...					Nett cash £1 0 0				

☛ We hear constant complaints from Chemists who have not tried our goods, of the impossibility of obtaining reliable Willow Boxes.

NOW IS THE OPPORTUNITY.



AVAIL YOURSELF OF IT AT ONCE

AND WRITE TO THE MANUFACTURERS,

AYRTON & SAUNDERS, 149 Duke Street, LIVERPOOL.

TOMLINSON & CO.'S "BUTTER COLOUR,"

PUREST. STRONGEST. BRIGHTEST. BEST.

Own Manufacture. Guaranteed Absolutely Pure, free from objectionable tastes or smells, aniline, alkali, or acid, and not to turn rancid or colour the Butter Milk. In extra large sized and attractive Bottles, to retail at 6d., 1s., 2s. 6d., and 4s. 6d. each, on usual terms.

IN BULK.—We quote SPECIAL PRICES if required in this way; and, being our own Printers, are prepared to supply Customers with special labels and directions for use at COST PRICE, and also supply small quantities of suitable bottles to fit orders at low prices, thus removing the trouble of first introducing the article. Samples and labels on application.

It is, we believe, superior to the imported or any other Colourings. Gives a splendid Golden Colour to Pomades, Ointments, &c. Send for Samples and Prices before ordering elsewhere.

READ THE FOLLOWING:—For Unrivalled Testimony, see page 42, "CHEMIST AND DRUGGIST," 15th January, 1886.

TOMLINSON & HAYWARD, Manufacturing Chemists, LINCOLN,

Proprietors of Tomlinson & Co.'s "BUTTER POWDER," for removing all bad tastes from Butter;
The "GLYCERINE DIP," for Sheep and Lambs; "GRANULAR BROWNING," for Gravies, &c.; "Patent Axle Grease,"
"Anti-Corrosive Boiler Composition," "Mercurial Sheep Ointments," &c.

PAPAIN FINKLER. THE NEW DIGESTIVE FERMENT.

USES.—INTERNALLY: In Dyspepsia and Gastralgia. Geo. Herschel, M.D. Lond., writes in the *British Medical Journal*, April 3rd, 1886:—"I find it chiefly valuable in (1) the Chronic Stomach Catarrhs of Children, (2) Acid Dyspepsia, and (3) Severe Gastric Pain coming on shortly after eating."

EXTERNALLY: It has been used by *Bouchut* in *cutaneous carcinoma*, *Rossbach* for dissolving the false membranes of *Diphtheria* (see *Zeitsch. für Klin. Med.*, vi. H. 6), by *Jacoby* of New York for the same purpose, and recently Prof. Finkler himself has restored patency to an œsophagus occluded by *carcinoma* by the continuous administration of a solution.

Manufactured by Dr. FINKLER & CO., Godramstein (Palatinate).

SOLE AGENT for the United Kingdom and Export—

B. KÜHN, 36 St. Mary-at-Hill, LONDON; & 55 Bloom Street, MANCHESTER.

SUPPLIED BY ALL WHOLESALE DRUGGISTS.

Specify "FINKLER" in your prescription, as other makes of Papain have different effects.

Instant relief given to sufferers of this painful disorder
by using the

PYRMONT TABLETS AND OINTMENT.

Simple, Effective.

The receipt
of this valuable cure
is of over 80 years' standing,
and the Tablets and Ointment can
be procured of all Chemists or from the
Sole Manufacturers, who will forward them on
receipt of P.O.O., as under:—Tablets, 2/11, post free;
Ointment, 2/11, post free.

Once used will recommend
themselves.

BAYLEY'S, 17 Cockspur Street, LONDON.

The original and only Makers. Established 1739.

WHOLESALE, RETAIL, AND MANUFACTURING PERFUMERS.

METHYLENE.

Obtained by the action of Metallic Zinc on Chloroform and Alcohol.

Discovered to be a general Anæsthetic by Dr. RICHARDSON in 1867.

1-lb. Bottles, 16s.; 8-oz., 8s. 6d.; 4-oz., 4s. 6d.; 2-oz., 2s. 6d.

COMPOUND ANÆSTHETIC ETHER,

For producing Local Anæsthesia.

In 4-oz., 10-oz., and 20-oz. Stoppered Bottles, 2s., 4s., and 7s.

OZONIC ETHER.

In 2-oz., 4-oz., 8-oz., and 16-oz. Stoppered Bottles, 2s., 3s. 6d., 7s. and 12s.

PEROXIDE OF HYDROGEN.

First introduced as a medicine by Dr. RICHARDS

ETHYLATE of SODIUM

(Dr. RICHARDSON'S Formula), for removing Nævi, &c. In ½-oz. & 1-oz Bottles, with elongated Stoppers for applying the Caustic, 2s. 6d. &

STYPTIC COLLOID,

or promoting the Healing of Wounds by the first intention.

In 2-oz. and 4-oz. Bottles, with brush, 2s. 6d. and 4s. 6d.; 16-oz., 12s.

CHARCOAL CAPSULES,

Containing Pure Vegetable Ivory Charcoal.

In Boxes, 2s. 6d. each.

INJECTION DAY.

An Infallible Remedy and Certain Cure

IN ALL

URINARY DISCHARGES.

BOTTLES 2/6 EACH.

Depot: **J. MUNDAY, Chemist, Cardiff.**

London: **F. NEWBERY & SONS, 1 King Edward St., E.C.**

Melbourne—**FELTON, GRIMWADE & CO.; ROCKE,**
TOMPSITT & CO. Sydney—**ELLIOTT BROS.**

Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

ORIGINAL AND



ONLY GENUINE.

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall,	London	Frazer & Green,	Glasgow	Morson, T., & Son,	London
Allen, Hanbury & Co.,	"	Gale & Co.,	London	Newbery & Sons,	London
Baiss Brothers,	"	Giles & Son,	Clifton	Oldham, G., & Co.,	Dublin
Banks & Richards,	Birmingham	Goulding, Messrs.	Cork	Parsons & Richardson	Leicester
Barron, Harvey & Co.,	London	Grattan & Co.,	Belfast	Peake, Allen & Co.,	Dublin
Bell, John, & Co.,	"	Grimwade, Ridley,	London	Raines & Co.,	York
Bourne & Taylor,	"	Grindley & Son,	Chester	Raines & Co.,	Edinburgh
Corbyn & Co.,	"	Hearon, Squire & Francis,	London	Sang & Barker,	"
Cox & Gould,	"	Hodgkinson, Tonge & Stead,	"	Sanger, J., & Sons,	London
Curling & Co.,	"	Hopkins & Williams,	"	Sim, James, & Co.,	Aberdeen
Curtis & Co.,	"	Hovenden, R., & Sons,	"	Smeeton, W.,	Leeds
Davy, M'Murdo & Co.,	"	Hunt & Co.,	Exeter	Southall & Co.,	Birmingham
Dobbin, W., & Co., Limited	Belfast	Hunt, A., & Co.,	"	Sutton, W., & Co.,	London
Drew, Barron & Co.,	London	Johnson, J. H. & S.,	Liverpool	Tomlinson, Hayward & Co.,	Lincoln
Drew, B., & Alexander,	"	Langton, W., & Co.,	London	Treacher, Hodgkinson & Co.,	"
Dunn & Company,	"	Lynch & Co.,	"	Westrup, J. B.,	Kensington
Edwards, W.,	"	Mander, Weaver,	Wolverhampton	Westwood & Hopkins,	Lincoln
Evans, Gadd & Co.,	Exeter	Marsden & Sons,	London	Woolley, James,	Manchester
Evans, Lescher & Webb,	London	Maw & Son,	"	Wyleys & Brown,	Coventry
Ferris & Co.,	Bristol	Meggeson & Co.,	"	Yates & Co.,	London
Foulger, S., & Son,	London	Mackay, John, & Co.,	Edinburgh		

After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy alone creates the great demand.

Sold in Bottles—1s. 1½d., 2s. 9d., 4s. 6d., and 11s. Usual Discount to the Profession.

SOLE MANUFACTURER,

J. T. DAVENPORT, Pharmacist,

88 GREAT RUSSELL STREET, BLOOMSBURY SQUARE, LONDON.

HORSE, CATTLE, AND SHEEP MEDICINES.

BY ROYAL APPOINTMENT.



By Special Warrant,
Dated 27th December, 1865.

DAY, SON & HEWITT,

INVENTORS AND SOLE PROPRIETORS OF THE



By Special Warrant,
Dated 10th February, 1866.

"ORIGINAL" STOCK BREEDERS' MEDICINE CHESTS.

Containing the following Matchless Remedies for all Disorders in Horses, Cattle, Calves, Sheep, & Lambs:

THE CHEMICAL EXTRACT.

For assuaging pain and inflammation in all wounds, saddle galls, strains, bruises, and swellings in horses; for pain after calving and lambing, and for swollen udders and sore feet. 4-doz. box, 7s. 6d.

THE RED DRENCH.

Celebrated for inflammatory disorders; such as fevers, pleurisy, foot-and-mouth complaint, yellows, surfeit, and red water. Also for difficult calving and lambing. 3s. 6d. and 13s. per dozen box.

THE GASEOUS FLUID.

Unmatched for colic or gripes and debility in horses, for colds, chills, shivering fits, and diarrhoea in cattle, calves, and sheep. 20s. per dozen box.

THE CARMINATIVE CHALK.

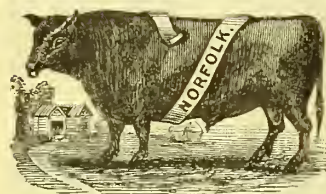
A warm stomachic in severe diarrhoea or flux, by way of change of the gaseous fluid in great irritation of the bowels. 4-doz. box, 10s.

Price of Chests, with "Guide to Farriery"—No. 1, £6/6/0; No. 2, £2/16/6; No. 4, £2/17/6 (for horses only). Carriage paid.

Prepared only by DAY, SON & HEWITT, 22 DORSET STREET, LONDON, W.,

And sold by all Wholesale Houses in London; Hood & Co., Melbourne; Felton, Grimwade & Co., Melbourne; Kempthorne, Prosser & Co., Dunedin and Auckland; Sbarland & Co., Druggists, Auckland; Fairborne & Co., Lancaster; Dombain & Co., Christchurch; Jenoure & Co., Jamaica.

A LIBERAL DISCOUNT TO EXPORTERS, AND ALL PARTICULARS ON APPLICATION.



The Proprietor of the "NORFOLK" CONDITION DRENCHES and other established "NORFOLK" Remedies for Horses and Cattle, begs to inform the trade that these Drenches are now in constant use by more than 1,000 Cowkeepers round London and other centres, besides a large consumption among farmers, &c. throughout the kingdom. When once introduced they are sure of a sale. Retail 1/2-doz. tin, 4s. 6d.; 1 doz., 9s.; 3 doz., 22s. 6d. each. To be had direct of the sole Makers, F. SUTTON & CO., NORWICH, or through any of the London houses.

Handsome Counter Lists furnished to sellers.

E. FOUGERA & CO.,

No. 30 NORTH WILLIAM STREET,
NEW YORK, U.S.A.,

Importers of and Agents for the Principal
FOREIGN MEDICINAL PREPARATIONS
AND SPECIALTIES.

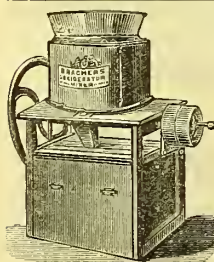
AGENCIES AND CORRESPONDENCE SOLICITED.

CALCUTTA INTERNATIONAL EXHIBITION, 1883-4.

GOLD
MEDAL,



Highest and only
Award ever obtained
for
Mixing Machines.



UNSOLICITED TESTIMONIAL.

BENJAMIN SODDY, Baking Powder Manufacturer
243 Walworth Road, London, S.E.,
Feb. 11, 1887.

Messrs. Bracher & Co.,
Gents,—Your "Desideratum" Mixer is a good
workman—it does its work first rate. I enclose
you cheque in payment of same. I deducted 5 per
cent. discount, which I believe is correct. Thanking
you for your trouble, I remain, yours truly,
B. SODDY.

N.B.—This Machine was Q. No. 7.

Applications to be made to

BRACHER & CO.,
PATENTEES & MANUFACTURERS,
WEST HILL, WINCANTON.

EISNER & MENDELSON,

IMPORTERS AND EXPORTERS OF

FOREIGN & DOMESTIC HERBS,
ROOTS, DRUGS,
CHEMICALS & PATENT MEDICINES.

Consignments and Agencies solicited. Highest references furnished.

Sole Agents for the U.S. for Jobann Hoff's Malt Extract.

" " H. Trommsdorff's Chemicals.

818 & 320 RACE STREET, PHILADELPHIA, PA.

The Original
Arnicated

ESTABLISHED
A.D.
1846.

Please

see that
YOUNG'S

goods are
supplied, as there
are many worthless
imitations.

Corn and
Bunion
Plasters.

HENRY YOUNG, Manufacturer, LONDON.

Established
nearly 50 years.

DAY & SONS'
WORLD-FAMED

Awarded
26 Prize Medals.

HORSE, CATTLE & SHEEP MEDICINES.

DAY & SONS' FOR Healing Wounds in all Animals. FOR Sore Shoulders & Cracked Heels in Horses. FOR Sore Teats and Swollen Udders in Cows. FOR Anointing in Bad Lambing and Calving. FOR Every Horsekeeper, Farmer, & Shepherd.	PRICE $\frac{2}{6}$ Per Bottle	DAY & SONS' FOR Fret Colic or Gripes in Horses. FOR Debility and Shivering Fits in Horses. FOR Hoven or Blown Cattle and Sheep. FOR Scour or Flux in Calves and Lambs. FOR Chills, Debility & Colic in all Animals.	10/- PER HALF DOZ. 19/- PER DOZ.
Purified DRIFFIELD OILS		BLACK DRINK	

DAY & SONS' "WHITE OILS," for all External Injuries where the skin is not broken, such as Weak or Swollen Joints, Strains or Sprains, Spavins, Callous or Splints, Bruises of every description in Horses, Cows, Oxen, Sheep, Lambs, and Calves. Price 2/6 per Bottle; 6 Bottles in a Box, 15/.

DAY & SONS' "HUSK DRAUGHT," for Husk or Hoose in Cattle, Calves, and Sheep. Price 20/ per dozen.

DAY & SONS'

FOR Bad Cleansing after Calving.
 FOR Preventing Milk Fever.
 FOR Purifying the Milk.
 FOR Fevers, Yellows, Indigestion.
 FOR Red Water, Costiveness and Dulness.

RED DRINK

PRICE

12/-

Per

DOZ.

DAY & SONS' ALTERNATIVE POWDER FOR HORSES.—Un-equalled for Coughs, Colds, Sore Throat, Thick Wind, Loss of Appetite, Sluggishness, Thick Water, &c. Price 3/6 per dozen, in Canisters containing 1, 2, 4, and 6 dozens.

DAY & SONS' "AROMATIC CHALK MIXTURE," an excellent Stomachic and aid to the "Black Drink" in cases of Scour in Cattle, Calves, Sheep, and Lambs. Price 2/6 per Canister.

THESE AND OTHER WORLD-FAMED MEDICINES ARE CONTAINED IN THE "ORIGINAL" UNIVERSAL MEDICINE CHESTS

No. 13, Price £2 4s. and No. 11, Price £5,
FOR ALL DISORDERS OF HORSES, CATTLE, CALVES, SHEEP, AND LAMBS.

THE "HORSEKEEPER'S" MEDICINE CHESTS, price £2 14s. and £5, are specially arranged for Horses, and contain all that is required to keep them free from disease, and in fine, healthy condition.

All goods carriage paid. Beware of strange imitations, and note Name and ONLY ADDRESS—

DAY & SONS, CREWE, CHESHIRE.

WHOLESALE AGENTS—

Messrs. Barclay & Sons; Burgoyne, Burbidges & Co.; Evans, Lescher & Webb; Sanger & Sons, &c., London. Messrs. Evans, Sons & Co., Liverpool, &c



BY SPECIAL
APPOINTMENT.

SPRATTS PATENT MEAT "FIBRINE" VEGETABLE DOG CAKES (WITH BEETROOT).



BY SPECIAL
APPOINTMENT.

DOG MEDICINES for the Cure of Distemper, Worms, Mange, Eczema, Ear Canker, Rheumatism, and the various other Canine Diseases. Full List and Pamphlet on Canine Diseases, post free.

"COMMON SENSE OF DOG DOCTORING," price 6d. **DOG SOAP.**

LOCURIUM. Price 6d. and 2s. per Bottle, retail. A Patent Vegetable Oil, curing Sore Feet in Dogs, Cracked Heels, Broken Knees, or Sore Backs in Horses; and Sores, Bites, and Wounds of all kinds either in man or beast. Small Pamphlets on Canine Diseases supplied free for distribution.

WHOLESALE
TERMS OF

SPRATTS PATENT LIMITED, LONDON, S.E.,

OR YOUR WHOLESALE
HOUSE.

CEMENT FOR BROKEN ARTICLES.

FOULKES' CEMENT. AS USED AT ALL THE GOVERNMENT MUSEUMS.

Suited for any substance, from glass and china to leather, wood, or iron, and the articles joined bear washing in boiling water. The large range of materials to which this cement is applicable, its transparency, strength, and facility in use, and the readiness with which it adheres, renders it, without doubt, THE MOST USEFUL EVER INVENTED. It is equally applicable to articles of the coarsest or the most delicate in construction.

The great success which attended its introduction, now more than 20 years ago, has given rise to a host of imitations, under as many various titles, some of these being of an exceedingly crude character, and most unsatisfactory to both vendor and buyer. The above celebrated Cement is uniformly prepared and neatly put up, and is guaranteed to remain unchanged in any climate.

Professor ARCHER, F.R.S., &c., Edinburgh.—"I can testify most unhesitatingly to its great utility in the various occasions which continually arise in Museum work for a first-rate Cement. I have invariably found yours superior to all others, and have extensively recommended its use to all my friends."

SOLD IN BOTTLES at 6d. and 1s. (equal to three of the smaller).

Wholesale at the Patent Medicine Houses and Druggists' Sundriesmen, or from
W. J. FOULKES, Pharmaceutical Chemist, BIRKENHEAD.

H. A. GOODALL & CO.,

ESTABLISHED 1852,

6, 7, 15, & 18 BARTLETT'S BUILDINGS, HOLBORN CIRCUS,

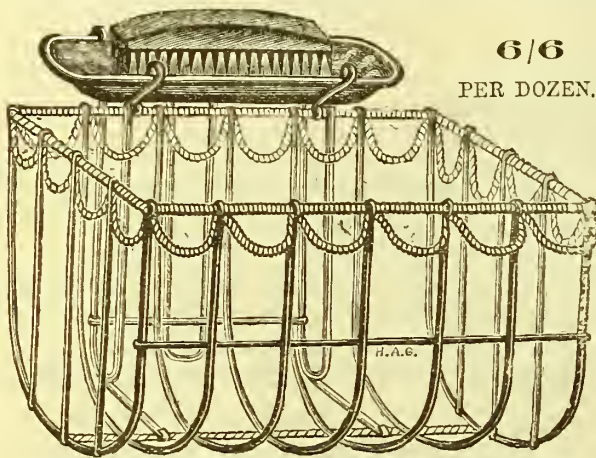
TELEGRAPHIC ADDRESS—
RENA LONDON.

LONDON,

BANKERS—
CITY BANK, LONDON.

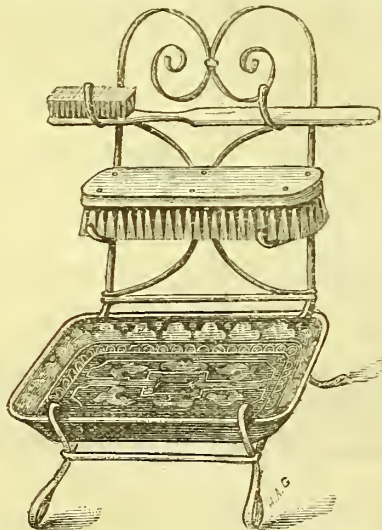
ARE ONE OF THE BEST AND CHEAPEST MARKETS IN THE TRADE.

No Travellers sent out, but intending Cash Customers can have a Price List, with 1670 Illustrations, on sending Business Card and Trade References.



6/6
PER DOZEN.

THE HOLBORN SPONGE BASKET,
With Fancy China Brush Dish, 8 inches long, 5 inches wide.



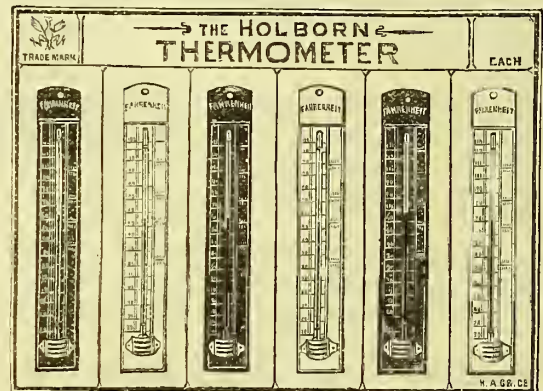
THE HOLBORN BRUSH AND SOAP STAND.

GOODALL'S TWIN TOOTH BRUSH STAND,

REGISTERED.

3/9 per dozen; or complete with Two
Brushes, 7/9 per dozen.

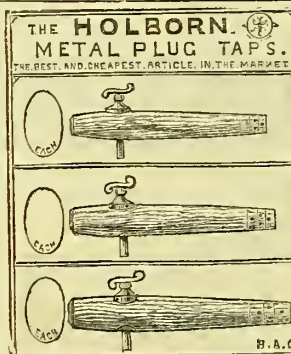
3/9
Per dozen.
—
BRIGHT
WIRE,
WITH
CHINA
DISH.



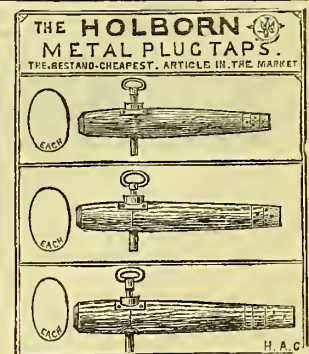
8-inch Thermometers, 3/9 and 6/9 per dozen.



Storm Glass and Thermometer, 7/6 per dozen.



THE HOLBORN
Polished Wood, Metal Plug Taps,
Perforated Ends.
6½ 2/2, 7 2/6, 7½ 2/10 per doz.



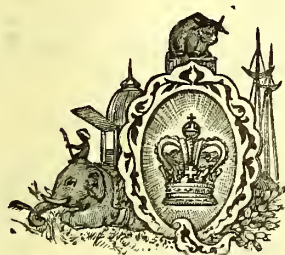
THE HOLBORN
Polished Wood, Metal Plug Key
Taps, Perforated Ends.
6½ 2/8, 7 3/0, 7½ 3/3 per doz.

SAML. CLARKE,

"FAIRY" LAMP AND "FAIRY" LIGHT WORKS,

CHILD'S HILL, LONDON, N.W.

Show Room: 31 ELY PLACE, E.O.



QUEEN'S BURMESE WARE is of the nature of glass, its discovery (for that it was rather than invention) is due to the United States; the ware is now manufactured in England under a patent. Its loveliness when illuminated is due to the material, its translucency, and its blending from peach to yellow, which is of the perfectness that radiated heat alone can effect.



"FAIRY" LAMPS AND "FAIRY" LIGHTS.

The patentee of the "FAIRY" Lights considering the Burmese Ware very suitable for his "FAIRY" Lamps, has had made of that Ware some very beautifully designed Chandeliers, Candelabra, Brackets, Bowls, &c., which he is pleased to add to his already large and varied stock of "FAIRY" Lamps.

His additional Show Room at 31 Ely Place, Holborn Circus, is fitted up expressly for the display of these beautiful goods and is now ready for inspection by the Trade. There will be a Special Illuminated Display every Tuesday and Friday. The goods will be on show every day.

This "FAIRY" system of Illumination has called forth numerous encomiums from both individuals and the Press, but no greater compliment could possibly be paid than that of the Royal Botanic Society of London on June 30th and July 10th, 1886, when not only did the Council graciously award a "Special First Class **GOLD MEDAL**," but a resolution conveying a vote of thanks "to Mr. Clarke for his great assistance at the Evening Fêtes of June 30th and July 7th, 1886," &c. Then again in *Punch*, July 17th, 1886, there appeared—"Royal Botanical Fête! **Illuminations perfect. Great Success. All sweetness and light.**" Complimentary articles appeared in *Truth*, February 25th and March 4th, 1886; *The World*, April 21st, 1886; *The Pottery Gazette*, August 2nd, 1886; and various other Journals of high-class standing.

N.B.—All the Lamps bear the Trade Mark "**FAIRY**," without which none are genuine.

Patented, and Trade Mark "FAIRY" Registered in Great Britain, France, Germany, Belgium, Spain, Austria, Russia, United States of America, and all the Australian Colonies.

EAU DE COLOGNE

OF THE MOST ANCIENT DISTILLER,

JOHANN MARIA FARINA,

Opposite the Julichs Place, COLOGNE.

ESTABLISHED A.D. 1709.

PRIZE MEDALS:—LONDON, 1851 AND 1862; OPORTO, 1865; PARIS, 1867; VIENNA, 1873.

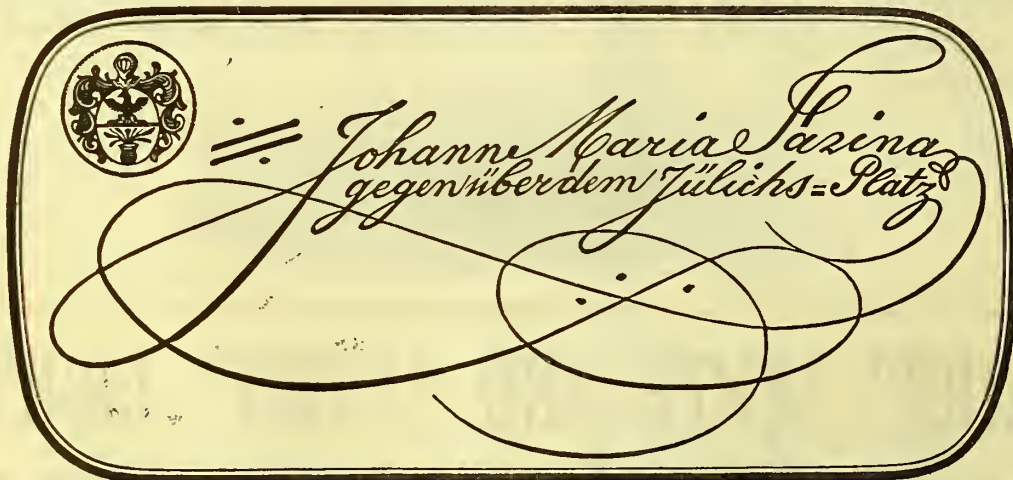
By appointment, Sole Purveyor to Her Most Gracious Majesty Victoria, Queen of Great Britain & Ireland; Their Royal Highnesses the Prince and Princess of Wales; William, King of Prussia;



Albert II., King of Saxony; Alexander II., Emperor of Russia; Francis Joseph, Emperor of Austria; Lewis, King of Portugal; H.R.H. Frederick William, Crown Prince of Prussia.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark, for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all persons selling or exposing for sale any such imitations.

I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 12s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

MESSRS. J. & R. McCracken,

No. 38 Queen Street, Cannon Street, London, E.O.

The following are the sizes of my bottles:—

No. 1. Long Green Flasks	—	—	—	—	—	—	12 bottles	} to one dozen.
„ 2. Short White Bottles	—	—	—	—	—	—	12 „	
„ 3. Double ditto	—	—	—	—	—	—	6 „	
„ 4. Wickered Bottles (small)	—	—	—	—	—	—	8 „	
„ 5. ditto (medium)	—	—	—	—	—	—	4 „	
„ 6. ditto (large)	—	—	—	—	—	—	2 „	

JOHANN MARIA FARINA,

OPPOSITE THE JÜLICH'S PLACE.

COLOGNE: January, 1887.

W. KEMP & SON, SEED CRUSHERS, HORNCASTLE.

COPY OF ANALYTICAL REPORT.

G. CARR ROBINSON,
F.R.S.E., F.I.C., F.G.S.

SCHOOL OF CHEMISTRY,
AND
ANALYTICAL LABORATORY,
ROYAL INSTITUTION,
HULL, 11th March, 1887.

*Report on Samples of Crushed Linseed received from
MESSRS. W. KEMP & SON, HORNCASTLE.*

SAMPLE MARKED
"KEMP'S No. 1 BEST LIGHT
CRUSHED LINSEED."

This sample is perfectly pure Crushed Linseed. It is made from a first-class grade of seed, and is remarkably free from dirt, soil, &c. It is free from any starchy matters. It has a bland oleaginous taste, producing no bitterness in the mouth nor any burning sensation. It shows a very high proportion of oil, viz., 44.5 per cent.; and 3 per cent. of mineral matter (or ash).

SAMPLE MARKED "X."

This sample is not pure. It contains an amount of starchy matter which is foreign to pure clean Linseed, and these starch granules correspond closely with those naturally present in Germ Meal. It also contains a coarse, nearly-black husk, not that of linseed. This sample has a bitter, burning taste, and imparts a hot "after-taste." It is low in oil, showing 32.44 per cent.; and it contains nearly 5 per cent. of mineral matter (or ash).

G. CARR ROBINSON.

The sample "X" was one of the many Crushed Linseeds now offering to the Trade at low prices and of nice appearance.

EVANS' INSECT POWDER

Imported and freshly ground at their own mills from *Closed Flowers*.

In bulk, or in 6d. and 1s. tins, with perforated rotary top, or in Enamelled Metal Boxes (Savars).

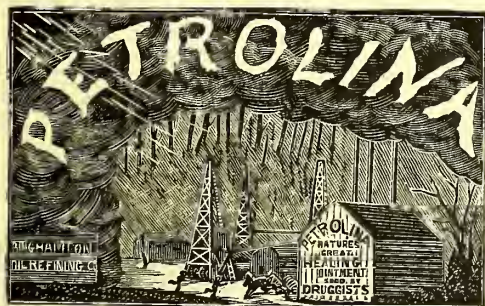
Samples and Prices on application, also Drug and Sundries Lists.

EVANS, LESCHER & WEBB,
60 Bartholomew Close,
LONDON.

EVANS, SONS & CO.,
56 Hanover Street,
LIVERPOOL.

Manchester, Birmingham, Montreal, Paris, Sydney, and Victoria, British Columbia.

Their Export List, Spanish and English, forms an excellent advertising medium for Proprietary Articles. Circulated to the Trade in every quarter of the Globe.



Packed in oak kegs, 112 lbs., 56 lbs., and 28 lbs., and also in the Patent "Self Opening" tins of 14 lbs., 5 lbs., and 1 lb. The acme of convenience.

Do not be satisfied with an inferior Petroleum Jelly when the
**VERY BEST IN THE MARKET IS THE LOWEST
IN PRICE.**

PETROLINA

Is a Pure, Sweet, Non-oxidisable Paraffinum Molle, superior in quality to anything of the sort ever produced.

Prepared in two consistencies, No. 1, 115° to 120° M.P.;
No. 0, 95° to 100° M.P.

To be had of all Wholesalers throughout Great Britain.

Agency of the BINGHAMTON OIL REFINING COMPANY, 3 COLEMAN STREET, E.C.

MESSRS. J. ATKINSON & CO.,

Of 5 FINSBURY SQUARE, LONDON, Manufacturers of HIGH-CLASS PERFUMERY,

Beg to inform the Trade that they are in no way connected with the firm of Messrs. J. & E. Atkinson, of Old Bond Street, but sell their Goods upon their own merits, viz.:—QUALITY AND CHEAPNESS.

GIBSON'S DELECTABLE JUJUBES, VOICE JUJUBES, & GLYCERINE PASTILLES,

Put up in 4-lb. Decorated Tins with Glass Lids, *Tins free*, are now being inquired for by buyers from all parts of the world.

They are not surpassed in quality by any maker, and give entire satisfaction.

MEDICATED AND HIGH-CLASS LOZENGES, OF EVERY KIND, sent out in 2-lb. or 4-lb. Bottles, Bottles Free; or in Tins, from 10-lb. upwards.
Lime Juice Tablets, Malt Tablets, Acid Drops, and Best Quality Boiled Sugars of every kind

CHLORODYNE JUJUBES AND CHLORODYNE LOZENGES.

PENNY SUGAR WORM CAKES, suitable for either children or adults. Have an immense sale, keep in any climate, and please everybody. Manufactured by
ROBERT GIBSON, Carlton Works, Hulme, MANCHESTER, & 1 Australian Avenue, LONDON.

Price Lists sent on application. Our Goods can be bought through any Wholesale or Export

in London.

KERNICK & SON,

WHOLESALE DRUGGISTS, &c.,

9 Mill Lane, **CARDIFF.**

SPECIALITIES—Syr. Ferri Phosph. Co., Syr. Hypophosph. Co., Unguenta, Mist. Sennæ Co., Acetic and Carbolic Acids.

LIST FREE. *Indents receive prompt attention. Correspondence française.***Critchley's Starch Gloss**

Makes Starched Linen like new. Does not stick to spider-like Materials. Once tried always wanted. Used in the Royal Laundries. Sold everywhere, in Packets, 1d., 3d., 6d., and 1s. each. Write for quotations.

Prepared only by
T. CRITCHLEY,
BLACKBURN, and
1 & 3 Australian Avenue,
LONDON, E.C.**CARMINE PUR.**

Chemists and others requiring Pure Carmine of the FINEST QUALITY will find this far superior to any other. It is intensely rich and brilliant in colour, perfectly soluble, and offers great advantage in price.

1 oz., 2s. 6d.; 4 oz., 8s. 6d.; 1 lb., 32s., nett cash, free by post.

J. SELLERS, 9 Farrington Road, London, E.C.**"LA BRILLANTINE"**

METALLIC POWDER (REGISTERED)

Is the best, cheapest, and most effective Powder for cleaning and polishing Metals and Glass (especially Brass). It is used by the LIFE, HORSE, and DRAGON GUARDS, the FIRE BRIGADES, &c., &c. Sold in 6d. and 1s. Boxes.

Proprietors: **J. F. BAUMGARTNER & CO.,**
22 Newman Street, Oxford Street, LONDON, W.

ANALYTICAL AND CONSULTING CHEMIST.

GEO. LOGAN RAIT, F.C.S., &c.

Laboratory—31 MOORGATE ST., LONDON, E.C.

*Assistance given to Manufacturers and others requiring Chemical knowledge.***Fifty per cent. discount allowed to the Trade.**

To all those of either sex who have lost or are losing their Hair,

CAPPER'S CRINIDONE, THE HAIR PRODUCER,

WILL PROVE A BOON.

Thousands of living Testimonials testify to the efficacy of "CRINIDONE." In bottles, 1/ each.

Wholesale Agents—EVANS, SOXS & CO., Liverpool.

Sole Manufacturer—W. B. CAPPER,

21 Oxford Street, C.-on-M., MANCHESTER.

THEEROLINE SANITARY DISINFECTANT

AND

FLUID SHEEP DIP.

NON-POISONOUS.

THE BEST AND MOST RELIABLE, AND THEREFORE THE CHEAPEST ANTI-FRICTION GREASE, OILS, PAINTS, TAR, ROSIN, &c.

PITCH, in Boxes and Casks, from 1 lb. to 4 cwt.

*Prices and samples on application.***ELVIN BROTHERS, HULL.****S.V.R. (RECTIFIED PURE SPIRIT)**

Choicest quality at lowest rates.

Export and Home Consumption.

**EDGELL BROTHERS,**
EXTRA FINE 4 Brabant Court, Philpot Lane, London, E.C.

BOXES

MANUFACTURERS OF EVERY DESCRIPTION IN ALL MATERIALS SHAPES & SIZES

WILLOW, CARDBOARD, PAPER & TURNED WOOD

SENT FORWARD BY SAMPLES & PRICES ON APPLICATION

AVRTON & SAUNDERS LIVERPOOL

PERFUMES, No. 30.

FIFTY KINDS.

9s. for 20 oz., Carriage Paid.

Samples of any kind for 2 stamps.

When buying, compare my Perfumes with other makers', and buy the best.

GEORGE DURRANT, HERTFORD.*London Depot—Messrs. BAISS BROS. & CO.***PRIVATE TUTOR.****MR. JAMES W. SAUNDERS***(From the Royal School of Mines).***6 ROCHESTER SQUARE, CAMDEN ROAD, N.W.**

Private and Postal Tuition only. No Classes or Demonstrators, but individual personal attention. Minor and Preliminary. Enclose stamp for terms. Note change of Laboratory to

65 EUSTON ROAD, KING'S CROSS, N.W.
Opposite Main Entrance to St. Pancras Station.**C. F. PEARSON & CO.,**WHOLESALE EXPORT & IMPORT DRUGGISTS,
SECUNDERABAD, DECCAN, INDIA,

The only Wholesale Druggists in the Hyderabad Territory (population over ten millions) invite correspondence with reference to Agencies for Specialities. Are prepared also to give quotations for the most recently-known East India drugs.

PETROLEUM JELLY,

EQUAL TO AND CHEAPER THAN VASELINE.

SANITARY FLUID AND SHEEP DIP,
THE CHEAPEST AND BEST DISINFECTANT.

GREASE, PITCH, ASPHALTE, AND ALL PRODUCTS OF TAR AND ROSIN.

*Samples and Prices on application.***GRINDLEY & CO., POPLAR, LONDON, E.****ANTOINE'S INK.**

PARIS.

GREENWICH.

SOLD BY ALL STATIONERS THROUGHOUT THE WORLD.**CHLORODYNE (W.H.B.)**

FOR HOSPITAL, DISPENSARY, AND SURGERY USE.

Perfectly miscible, soluble, and inseparable. It neither ferments, cakes up, nor deposits, and being more limpid than other kinds, is more quickly and accurately dispensed. Used for some years in the Corporation of the Poor Dispensary, Exeter, by W. H. Bulley, Dispenser. It is by far the best and cheapest Chlorodyne made for the profession and trade.

N.B.—10 minims contain $\frac{1}{2}$ gr. Morph. Mur. The other active ingredients are Chloroform, Ether, Tinct. Capsic, O.L.M. Pip. and Acid Hydrocy. : 3xx.cge. free for P.O.O. for 10/; 3s. Sample Bottle free for six stamps.

Address—W. H. BULLEY, Chemist, EXETER.

"SPÉCIALITÉ" LIME JUICE

NO MUSTY FLAVOUR. REQUIRES NO SUGAR.

*For Sample and Terms***FELTOE & SONS,**
ALBEMARLE STREET, LONDON, W.*Can be obtained through the Wholesale Houses.*

F. FOSTER, M.I.M.E., M.S.A.,

Licensed Valuer to the Mineral Water, Chemical,
Brewing, and Wine & Spirit Trades.

(BARNETT & FOSTER),
NIAGARA WORKS, 26th EAGLE WHARF ROAD,
LONDON, N.

E. MEINERTZHAGEN,

9 MINCING LANE, LONDON, E.C.,

Importer of SARSAPARILLA & IPECACUANHA.

ALL DRUGS AND GUMS SORTED AND PACKED.

TRADE MARK.

STYPIUM

REGISTERED

ANTISEPTIC DRESSING

FOR FOUL DISCHARGING SORES, CANCEROUS ULCERS,
PILES, FISTULA, &c.

MADE UP IN 4-lb. AND 1-lb. CASES.

STEPHENSON & TRAVIS, 12 Hopwood St., LIVERPOOL.

FOR CLEANING PLATE

BRADLEY & BOURDAS'S

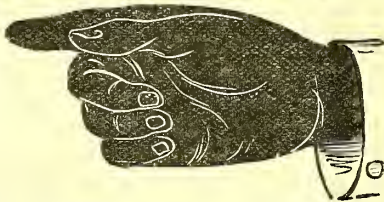
ALBATHUM or WHITE ROUGE,

For Cleaning Gold, Silver, and Plated Goods.

Since its introduction as a substitute for the ordinary Rouge, a quarter of a century ago, the sale has amazingly increased both at home and abroad. A trial is only needed to prove its superiority over other plate-powders in use. Sold in Boxes at 1s. and 2s.; Tins, 6s. 6 Pont Street, Belgrave Square, and 48 Belgrave Road, London, S.W.

ONCE HAVING SEEN

A sample of **SHIRLEY'S A1 BRAND MENTHOL**, in Boxwood Cases, with directions printed on the boxes, instead of labels as formerly, you will never buy anything else, as the article looks worth twice the value, and your trade will be doubled by selling it. Order a sample dozen and judge for yourself. The most saleable shapes are 6d. No. 11A, and 1s. No. 14A, price 3s. 6d. and 6s. 3d. per dozen respectively; or, if a large buyer, write for a sample, and it shall be sent free, with full particulars as to prices for a quantity. Buyer's own name can be printed on the cases free of charge if a moderately large order is given.



ARTHUR W. SHIRLEY (late J. G. Shirley), 30 Paternoster Square, LONDON, E.C.

BEST & SAFEST DENTIFRICE.

OSCAR SUTTON & CO., Preston, Lancashire.

O S TOOTH BLOCK

REGISTERED TRADE MARK.

NOTICE.—We have had so many enquiries for O.S. Tooth Blocks loose without boxes, that we have put them on the market in packets of one dozen, and they are designated No. 0 (please note this when ordering).

Our O.S. Tooth Blocks, in patent metallic boxes, designated No. 1, are now supplied with sunk recess, into which Chemists can affix their own labels. Appropriate labels in dark leatherette, with Chemist's name, &c., in gilt lettering, can be supplied sufficient for 1 gross at 5s. (actual cost to us).

Chemists' names can be stamped on each Block free of charge on any quantity, the only expense being first cost of dies, at 6d. per letter ordered.

A sample, post free, for two stamps.

CARDIGAN POLISH REVIVER.

ONE SHILLING FLASKS, each containing **AN IMPERIAL HALF-PINT.**

HALF-BOTTLES, for Retailing at SIXPENCE each, of the same Distinctive Colour as the Flasks, and of equally Attractive Appearance. CASES CONTAIN—1 dozen Flasks or 2 dozen Half-Bottles.

Materials of a Superior Quality ONLY

are used in our manufacture.

LABOUR SAVING.

TRADE MARK.

ECONOMIC.—Small quantity only required when applied as instructed to Furniture on any other article whose polish needs either reviving or CLEANSING.

Apply WITHOUT any previous washing of the surface, and DO NOT RUB AFTER APPLICATION.

CARDIGAN WORKS, FIELDGATE STREET, LONDON, E.

A daily luxury for rich and poor.

VAN HOUTEN'S COCOA

Guaranteed Pure and Soluble,

Is **SIMPLY UNEQUALLED**, and really **THE CHEAPEST**
in the end.

A cup of this cocoa costs no more than a cup of tea, and is a highly nutritive beverage.

Digested with marvellous facility by the most delicate invalids and children.

Made instantly with boiling water.

The **British Medical Journal** says:

"Van Houten's Cocoa" is admirable. In flavour it is perfect, and it is so pure, well prepared, and rich in alkaloid, that it may with great advantage be largely used in public institutions, as well as in private families."

The **Lancet** remarks: " . . . It goes a long way, and is really cheaper to use in the end, etc., etc."

Invaluable in railway stations, hospitals, on board ship, in the camp, for workmen (at home and to take to their work), etc., etc.

Try it once and you will use and recommend it always.

Sample tins free through your Grocer or Chemist.

THE ONLY PERFECT ENEMA OBTAINABLE.

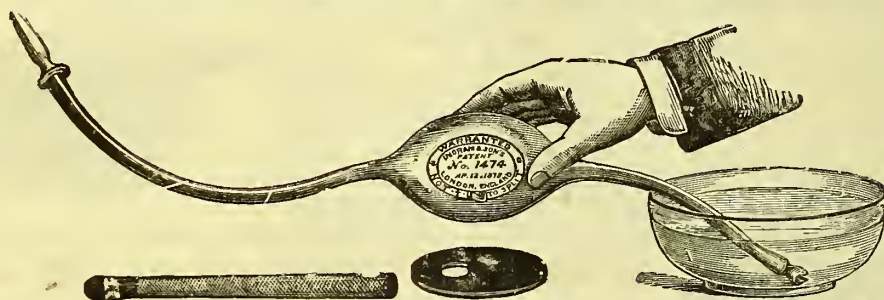
INGRAM'S IMPROVED HIGGINSON ENEMA AND SYRINGE APPARATUS

(BY ROYAL LETTERS PATENT).

Made without Seams or Ribs by our Patent Process of dipping in a solution of India Rubber, thus adding great strength and durability.

NONE GENUINE UNLESS STAMPED WITH NO. OF PATENT 1474

CAUTION.—The only
Enema made without
Ribs.



All Imitations may be
detected by the Ribs on the
Surface, and are always
liable to split.

WARRANTED NOT TO SPLIT.

A.—Metal Pin Valve.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is perfectly smooth on the surface, will not become hard or sticky, will not leak, and will not admit air while injecting or refilling. Specially prepared to resist the heat of tropical countries.

The great superiority of INGRAM'S IMPROVED PATENT SEAMLESS ENEMA over all others has given rise to VARIOUS IMITATIONS, and it has become imperative that the Patentees should, in order TO PREVENT DECEPTION, explain the PROCESS OF MANUFACTURE OF THEIR ENEMA and the MODE OF MANUFACTURE OF IMITATIONS thereof, as they have UNDENIABLE PROOF that INFERIOR ENEMAS are positively BEING SOLD as their "ADVERTISED" PATENT SEAMLESS ENEMA.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is made by a NEW PATENT PROCESS, viz.: By repeated dipping in a solution of India Rubber until the required substance is attained. This process adds greatly to its STRENGTH and DURABILITY, and, at the same time, dispenses WITH ALL SEAMS, which, as is well known, are weak points in an Enema. This improved mode of manufacture (the result of long study and experience) enables the Patentees to produce a PERFECT ENEMA WITHOUT SEAMS, thus overcoming the great fault to be found in ALL other Enemas, viz.: SPLITTING AND LEAKING, which has always been a source of trouble.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is fitted with IMPROVED VALVES, which prevent the admission of air with the fluid and CAN at any time BE REPAIRED, if necessary.

CAUTION.—Imitations of INGRAM'S IMPROVED PATENT SEAMLESS ENEMA are made of several pieces of Sheet India Rubber, which are cemented together and shaped in a mould, THUS PRODUCING RIBS ON THE SURFACE, and ENEMAS SO MANUFACTURED ARE ALWAYS LIABLE TO SPLIT AND LEAK AT THE SEAMS, AND THUS TO BECOME QUITE USELESS.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA may be distinguished from ALL IMITATIONS by its ENTIRE FREEDOM FROM RIBS OF ANY DESCRIPTION on its surface, and by having an IMPROVED METAL PIN VALVE at the suction end A; and it is acknowledged to be the ONLY PERFECT ENEMA OBTAINABLE.

Patented in England, No. 1474, April 12, 1878; in France, No. 126,909, October 11, 1878; and in America, No. 212,939, March 4, 1879.

To be obtained of all Surgical Instrument Makers, Druggists' Sundriesmen, Chemists and Druggists, in the three following qualities:—

No. 1a. Highly Polished, in Red, Green, Blue, Black, or White.

No. 1b. Unpolished, in Red, Green, Blue, Black, or White.

No. 2. Unpolished, in Drab only.

Favourably noticed in "British Medical Journal," December 13, 1879; in the "Lancet," January 3, 1880; and in "British Medical Journal," September 30, 1882.

COLTHURST & HARDING,

PHENIX COLOUR WORKS, BRISTOL,
Contractors to the Admiralty, the India Office, and
leading Railway Companies. Manufacturers of

WHITE LEAD, ZINC WHITE,

PAINTS & COLOURS OF ALL KINDS.

MIXED PAINTS READY FOR USE,
In Tins, 1, 2, 4, 7, and 14 lbs. each.

TEREBINE & PATENT DRYERS.

HIGH-CLASS VARNISHES

Of all kinds, for Coachbuilders, Decorators,
and Japanners.

**BALL DENOTES
COLOUR OF PAINT.**

OIL BOILERS, REFINERS & MERCHANTS.
Export Orders receive special and prompt attention.

**W. H. B. WHITE
W. H. B. REFINED } BEESWAX.**

CERTIFICATE OF ANALYSIS.

ROYAL INSTITUTION LABORATORY,
Liverpool, Sept. 4th, 1886.

MESSRS. W. H. BOWDLEAR & CO.
GENTLEMEN,—I have carefully analysed a cake of White Wax
stamped "Pure W. H. B. Beeswax, W. H. Bowdlear, Boston,
Mass., U.S.A.," with the following result:—Melting point
150° F., specific gravity 9635. There is no Paraffine, Resin,
fatty matter, or other adulterant present, and I find it to be
Pure White Beeswax.

I remain, yours respectfully,
EDWARD DAVIES, F.C.S. and F.I.C., &c.

We will deliver our goods, carriage paid, to any city or town in the world in
15-cwt. lots.

CABLE ADDRESS—"BOWDLEAR BOSTON."

W. H. BOWDLEAR & CO.,
147 Pearl Street, BOSTON, MASS., U.S.A.

GENUINE OIL OF MUSTARD SEED

Is strongly recommended as a safe and effectual remedy in cases of Rheumatism, Gout, Rheumatic Gout, Sciatica,
Lumbago, Headache, Pains in the Stomach, Spasms, Bruises, Chilblains, &c. Retail in Bottles, 1s. each.

Imported by **J. H. & S. JOHNSON, Wholesale Druggists,**
6, 8, & 10 WHITECHAPEL, AND 7 CHURCH STREET LIVERPOOL.

JONES & COMPANY, METHYLATED SPIRIT MAKERS.

Regent Wharf, Copperfield Road, Mile End, London, E.
FROM RATCLIFF.

SAMPLES AND PRICES UPON APPLICATION.

ESTABLISHED 1823.

WILSON, WALKER & CO.

Sheepscar Leather and Glue Works, LEEDS.

CHAMOIS. GLUE

OF VARIOUS QUALITIES; also

POWDERED GLUE,

In Cwt. Bags, or 1 lb. and $\frac{1}{2}$ lb. Packets.

PRICES AND GLUE SAMPLES ON APPLICATION.

Telegraphic Address—"WILSON LEEDS."

EWEN'S GUARANTEED PURE LARD

Trade Mark.

ORIGINAL & BEST BASIS
FOR OINTMENTS, &c.

Trade Mark.



Adeps Præp. } EWEN'S
Adeps Benz. }



Can be obtained through any

WHOLESALE HOUSE.

Facsimile of Label.

Mutton, Beef, Veal, and Deer Suet and Beef Marrow,
Clarified Trotter and Neats' Foot Oil.

Every
variety
of

TOILET SOAP

from
56/ to 224/
per cwt.

EWEN'S

Clarified Fat Works,
Perfumery and
Toilet Soap Factory,

5 HATFIELD STREET, LONDON, S.E.

JAMIESON & CO.,

MANUFACTURERS OF

Harness Composition,

OIL PASTE & LIQUID

SHOE BLACKINGS,

Dubbin (Yellow & Black).

The above articles are made from the best ingredients only, and
have stood the test of time and of all climates.

Sold by all Wholesale and Retail Dealers throughout
the United Kingdom and Colonies.

LONDON, E.C.:

35 SKINNER STREET.

ABERDEEN:

WHITEHOUSE STREET.

PURE

SPIRITS OF WINE.

50 o.p., 20/3 per gall.; 56 o.p., 19/9 per gall.

1/ per Gall. Discount for Cash with order.

Further allowance for quantity. STEAM STILL ONLY.

GEORGE PHILLIPS & CO.,

ST. ANDREW'S DISTILLERY, CLERKENWELL RD.,
LONDON, E.C.

KEENE & ASHWELL'S

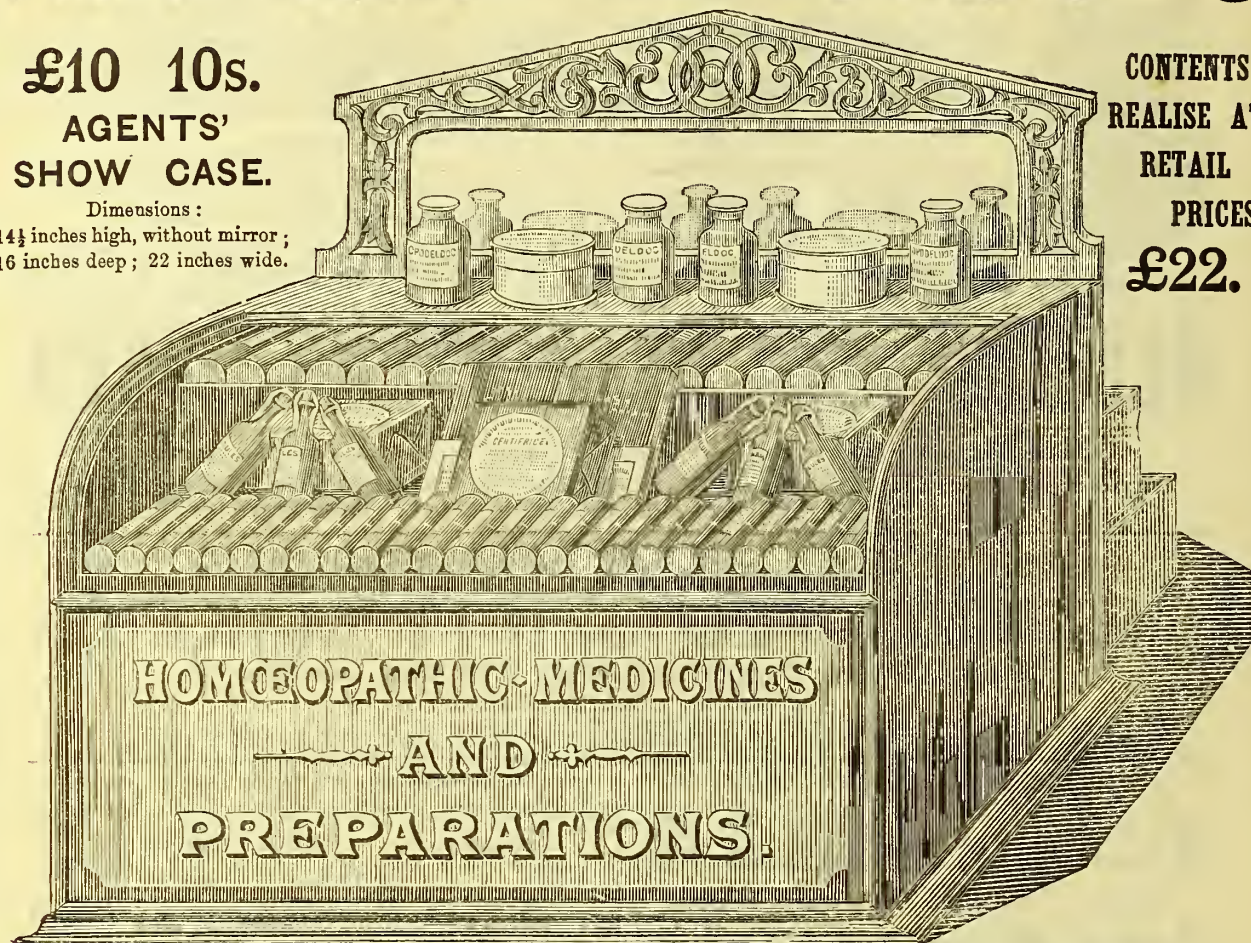
£10 10s.

AGENTS'
SHOW CASE.

Dimensions :

14½ inches high, without mirror ;
16 inches deep ; 22 inches wide.

CONTENTS
REALISE AT
RETAIL
PRICES,
£22.

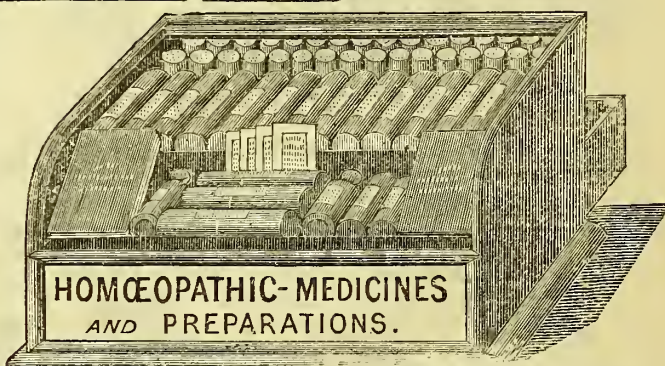


50/- AGENT'S SHOW CASE.

CONTENTS REALISE AT
RETAIL PRICES **105/-**

Size of 50s. Case, 16 × 10½ × 8.

This is the cheapest and best Homœopathic Show Case in the trade, and the only one with bent glass for the money. A list of others on application.



Homœopathic Medicines supplied in Bulk, and with Keene & Ashwell's "Companion to the Homœopathic Pharmacopœias," Chemists may be their own manufacturers. The "Companion," post free, 3/6, and Price Lists on application.

1/- SIZE, **CAMPHOR PILULES** **3/9** Per doz.
1 oz.

FIND A READY SALE EVERYWHERE.

DEPOT AND LABORATORY, **74 NEW BOND STREET.**
LONDON.



MUSK.



We offer

"SYMES' THIBET MUSK,"

Specially Grained, of Splendid quality, in sealed Bottles of $\frac{1}{4}$ oz., with Messrs. Symes & Co.'s guarantee on each, at following prices for cash:—

1 \times $\frac{1}{4}$ -oz. Bottle	25/-	} Net.
2 \times $\frac{1}{4}$ -oz. Bottles ...	...	...	45/-
4 \times $\frac{1}{4}$ -oz. ,, ...	...	...	85/-
16 \times $\frac{1}{4}$ -oz. ,, (4 oz.) ...	...	...	80/- per oz.

A fresh Shipment just to hand. Orders will be despatched as received, priority being given to earliest purchasers.

LYNCH & CO.

ALDERSGATE STREET, LONDON, E.C.

AND

48 QUEEN STREET, MELBOURNE.

NATURAL KARLSBAD SPRUDEL-SALT.

THE NATURAL KARLSBAD SPRUDEL-SALT contains all the essential principles of the KARLSBAD "SPRUDEL" MINERAL WATER, from which it is obtained by simple evaporation. It is alkaline, and dissolves readily. As a remedial agent, taken in small doses it acts as a *diuretic*, but in large doses as an *aperient*. It may be taken in doses of from 5 to 10 grammes—i.e. 77 to 154 grains, from 1 to 2 teaspoonfuls—dissolved in water, preferably soft. If the water is hard, it may become slightly turbid with the Salt in solution, but that is not in any way objectionable or prejudicial, as it does not at all affect the remedial action of the Salt. Or it may be taken, in the same doses, as an addition to the ordinary draughts of the Karlsbad Mineral Water, increasing its effect.

The SPRUDEL-SALT is officially prepared solely by the Karlsbad Municipal Authority, at their SPRUDEL-SALT WORKS. It is sold only in glass bottles, of two sizes, containing respectively 100 and 200 grammes; every bottle bearing labels with the Trade Mark as well as the Signature of LÖBEL SCHOTTLANDER, KARLSBAD (Austria), without which, and unless so packed, NONE ARE GENUINE. It is prepared and sold in two forms, crystallised and as powder.

PRESERVATION OF THE SALT.—The bottles must be kept well corked to prevent the Salt from disintegration, and as the Crystallised Salt commences to deliquesce at a temperature of about 88° Fahr., care must be taken to keep it in a dry cool place.

THE SPRUDEL-SALT IN POWDER (formerly labelled *Quellsalz*) is recommended as preferable for Exportation to and use in all tropical countries, because it does not deliquesce, and therefore undergoes no change. It is taken in the same doses, and has the same effect as the Crystallised Sprudel-Salt.

INGRAM & ROYLE,

52 FARRINGDON STREET, E.C. (and at LIVERPOOL and BRISTOL),

SOLE CONSIGNEES FOR GREAT BRITAIN & THE COLONIES.

TRADE PRICES:—Bottles containing 200 grammes = 3,086 grains 42/ per dozen.
Half-Bottles „ 100 „ = 1,543 „ .. 21/ „

CARRIAGE PAID. 5% Discount for Cash, or Quarterly Account *ret.*

CADBURYS COCOA ESSENCE

The medical profession order Cadbury's Cocoa Essence in thousands of cases, as the most wholesome beverage. Be sure

you get it when asked for, as imitations are often pushed for the sake of extra profit.

"We have carefully examined the samples brought under our notice, and find that they are genuine, and that the Essence of Cocoa is just what it is declared to be by Messrs. Cadbury Brothers."—*Lancet*.

"Cocoa treated thus will, we expect, prove to be one of the most nutritious, digestible, and restorative of drinks."—*British Medical Journal*.

GUARANTEED PURE AND SOLUBLE.

SOLE IMPORTERS

OF

APOLLINARIS WATER,

FRIEDRICHSHALL WATER,

HUNYADI JÁNOS WATER,

THE APOLLINARIS CO., LIM.,

19 REGENT STREET, LONDON, S. W.

SPECIAL PRICES ON APPLICATION.

A copy of this Supplement is inserted in every number issued of "THE CHEMIST AND DRUGGIST."

THE CHEMIST EXTRA AND DRUGGIST.
SUPPLEMENT TO

BUSINESSES WANTED. PARTNERSHIPS.
BUSINESSES FOR SALE. SITUATIONS WANTED
PREMISES TO LET. AUCTION SALES SITUATIONS VACANT.
EXCHANGE COLUMN

Advertisements for this Supplement must be prepaid, and can be received at the Office, 42 Cannon Street, until 5 p.m. on Thursday afternoon, or by first post on Friday morning of each week.

Remittances payable to EDWARD HALSE, crossed MARTIN & CO. Stamps are taken in payment.

The Terms for Advertisements in this Supplement will be found printed under each heading.

Further Proof of the Value of "THE CHEMIST AND DRUGGIST" as an Advertising Medium.

"It is only right I should at once become a subscriber to your Paper, as I got my first and only situation as Assistant, and also this business, through seeing advertisements therein."

177/34.

OFFICE: 42 CANNON STREET, LONDON, E.C.

SATURDAY, JUNE 25, 1887.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.,
CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The Business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on Value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

Particulars of any of the following will be sent free on application:—

- 1.—**LONDON.**—First-class locality; Retail and Dispensing; returns at present about £850; *net profits* nearly £400; business capable of great improvement; good house, moderate rent; full particulars on application.
- 2.—**LONDON, S.W.**—Attractive suburb; first-class Retail and Dispensing Business; returns at present nearly £650; large handsomely-fitted shop, and good stock; price about £600.
- 3.—**LONDON SUBURB, S.E.**—Light Retail and Dispensing, with Dentistry attached; business rapidly increasing; returns at present over £7 weekly; good reasons for disposal; handsomely-fitted shop; any reasonable offer will be considered.
- 4.—**ON THE BANKS OF THE THAMES.**—Good-class old-established business, situate in a good locality; returns at present about £500; *profits above the average*; convenient house; price about £500.
- 5.—**DERBYSHIRE.**—Attractive town; first-class Retail and Dispensing; returns over £850 yearly; *net profits* about £250; good house; small premium and valuation only required.
- 6.—**NORFOLK.**—Good market town; an old-established business; returns over £1,200; *very profitable*; good house, &c.; small premium and valuation only required.
- 7.—**WHOLESALE AND RETAIL.**—Within easy distance of town; returns at present nearly £6,000; *net profits* about £1,200; partnership introduction for one or two years can be arranged; the investment of £1,800 is required; full particulars in confidence on application.
- 8.—**NORTH OF ENGLAND.**—Good town; Retail and Prescribing Business *with good profits*; returns about £1,450 yearly; large shop, well fitted; value of stock and fixtures only required; about £800.
- 9.—**MIDLANDS.**—Good-class Retail and Dispensing; returns about £1,000 yearly, *with good profits*; large and convenient house; Partnership introduction can be arranged if wished; price about £750.
- 10.—**NORTH OF ENGLAND.**—Large town; Retail and Dispensing Business; held by vendor many years; returns at present at the rate of £1,700; *net profits* over £400; large handsome shop and good stock; about £1,500 required; part may be paid by instalments.
- 11.—**LEICESTERSHIRE.**—Good-class country Business; returns, under management, nearly £1,000; capable of great improvements; several good proprietary articles attached; large house; rent £55; terms—£200 goodwill, and valuation of stock and fixtures.
- 12.—**OXFORDSHIRE.**—Good-class Business; returns £850; rapidly increasing; capital position, and good house; a gentleman with knowledge of homoeopathic business would find this a specially good investment; about £700 required.
- 13.—**AGRICULTURAL DISTRICT (NEAR LONDON).**—Mixed Business, with *large profits*, not under £650 yearly; about £2,000 required.
- 14.—**ESSEX.**—Good market town; small increasing Business for disposal; returns last year, under management, over £300; capable of great extension; good house, large and well stocked garden; price £200.

WANTED.

WANTED.—PARTNERSHIPS OR FIRST-CLASS DISPENSING BUSINESSES, EITHER IN LONDON OR GOOD PROVINCIAL TOWNS—PROFITS NOT UNDER £500 YEARLY.—CASH READY.

N.B.—NO CHARGE TO PURCHASERS. Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms, where business of a confidential nature requires the special attention of a London agent.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

TAYLOR & CO.,**TRANSFER AGENTS AND VALUERS,**

CROWN BUILDINGS, 79 QUEEN STREET, CHEAPSIDE, E.C.,

Having a great number of Businesses, both in London and the Country, on their books for disposal, which they can recommend with confidence, invite gentlemen seeking *bona-fide* investments to call upon or write to them at their offices for a printed register of Businesses for Sale, which can be had free.

N.B.—No charge made to purchasers.

PARTNERSHIP.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED, PARTNERSHIP.—A Hamburg Merchant, particularly acquainted with the Drug trade and its most lucrative branches, wishes to enter into negotiations for an international establishment in Drugs, Medical Spirits, Chemicals, &c., which will greatly increase by Hamburg's entering into the Union of German Customs next year. Apply to Bruno Johannsen, 27 Ritterstr., Hamburg.

BUSINESSES WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

A GOOD-CLASS Retail and Dispensing Business, returning about £500; health resort, good country town, or residential neighbourhood preferred; or a neglected business capable of improvement would be entertained; kindly give full particulars in strict confidence. A. B., Southall Bros. & Barelay, Birmingham.

WANTED, to purchase a good-class Dispensing and Retail Business, yielding net profit of £400 to £500; health resort or good market town preferred; must bear thorough investigation; a Partnership entertained. Send full particulars to "Chemist," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

OLD-ESTABLISHED Retail and Dispensing Business, in market town, South Hants; population more than 6,000; no heavy business; returns over £800; retiring. Address, F., care of Messrs. Hodgkinson, Stead and Treacher, 198 Upper Whitecross Street, London.

FOR SALE, on account of the death of the proprietor, the Drug, Botanical, and Oil Business, situated at West Bridge, Leicester; good opportunity for a young man with the Minor qualification. Apply to Clark, Neutleship & Bailey, Leicester.

EXCELLENT Opportunity for a Chemist and Druggist; old-established at Wimborne, Dorset; in same hands 10 years; corner shop, neatly fitted; good thoroughfare; lease 11 years to run from September next; stock and fixtures; rent £37 per annum; cash price, £350; apprentice 7 months of term unexpired can be taken over; good house and garden, coachhouse and stabling, &c. Apply, Dowding, Auctioneer, Wimborne.

FOR SALE, a genuine old-established Chemist's and Druggist's Business, at Great Yarmouth; price for stock, &c., £450; shop and house at low rental, or freehold will be sold. Further particulars of Mr. Wm. Sayer, Solicitor, 24 King Henry's Road, London, N.W.

FOR SALE, Freehold House, Outbuildings, Garden, and Land for another house, with old-established Drug Business; Post Office, Savings Bank, &c., attached; situated in densely populated district of the Midlands; price £600; £400 can remain. "Eureka," 112 Spring Hill, Birmingham.

UNOPPOSED Business in a Manufacturing country village of between 2,000 and 3,000 population; large agricultural district; returns nearly £400 under manager, could be considerably increased; also the option of Gilbey's Agency; price £220; rent £24; let off £5. Further particulars apply, Thos. Stockdale, Skipton.

A GENUINE Dispensing and Family Retail Business, very pleasantly situated in Canonbury, Islington; been in present proprietor's hands 10 years; returns may be easily doubled by constant personal attendance; a personal interview best. Apply for particulars to T., care of Messrs. Hearon, Squire & Co., 5 Coleman Street, City, E.C.

GOOD OPENING FOR PRESCRIBING CHEMIST—A Shop, at present conducted by an unqualified assistant as a surgery, in E.C. district is for sale, principal being unable to attend; greater part of purchase money can be paid by easy instalments; price £50. Apply to J. M. D., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PLYMOUTH.—Good-class Retail and Prescribing trade; large corner shop, well fitted and stocked; returning about £8 weekly, formerly £15; large convenient house; rent cleared; satisfactory reasons for selling; price £220, to effect speedy sale; stock and fittings worth £300; must be sold. Apply, Messrs. Berdoe, 30 Jewry Street, Aldgate, City.

CLAPHAM COMMON.—Light Retail, with Dispensing, Prescribing, and Dental Agency; good opening for Dentist, Prescriber, or Doctor; well stocked and handsomely fitted; in good working order; large corner house, with two plate-glass windows and private entrance; returns £400; price £450; neighbourhood largely increasing. Pharmacy, 22 Battersea Rise, S.W.

BIRMINGHAM.—A ready-money light Retail, Dispensing, and Prescribing Business, returning, principally by the assistant, £12 weekly; a chemist who would give full personal attention could soon take £20; other engagements cause of selling; price £250 cash; the house and premises are large and very convenient; rent £45. No agents. Thornton, Bowyer Street, Birmingham.

TO CHEMISTS AND DRUGGISTS.—For disposal, in one of the best thoroughfares in Nottingham, a light Retail, Dispensing, and General Mixed trade; established over 20 years; several well-established proprietary articles attached, which may or may not be taken; an excellent opportunity for an energetic person with small capital; incoming moderate; present proprietor retiring from the trade. For particulars apply to "Jed," 14 Clumber Street, Nottingham.

LONDON, N.—An old-established Chemist's Business, situated in a densely populated neighbourhood; large shop, nicely fitted; good corner position; long lease; rent low, reduced by subletting to £15 a year; convenient house, private door; premises in thorough repair; a rare chance for anyone who is a good Prescriber and could Extract Teeth; illness sole cause of selling; open to every investigation; present returns nearly £300; price £200. Apply, "Vendor," care of W. A. Carter, Dealer in Druggists' Sundries, 150 St. John Street Road, London, E.C.

EMPLOYERS WANTING ASSISTANTS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

FOR a Mixed Country Business; a Junior Assistant; able to Dispense correctly, and to speak Welsh. W. H. Key, 89 and 90 Taff Street, Pontypridd.

WANTED immediately, an experienced Manager for Branch; must be a good salesman; liberal salary. Apply G. S. Boutall, 52 Marchmont Street.

INVOICE Clerk wanted, in London; one accustomed to town work. Apply by letter, stating age, last situation, &c., to W. B., care of Mr. Smith, Corn Merchant, Stratford, E.

WANTED IMMEDIATELY, a Young Man with some knowledge of the Drug trade, to call on shops for orders. M., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JULY 1ST.—Junior, where four are kept indoors; applicants will please state height, experience, salary required, and enclose photo (to be returned); half a day a week for recreation. Jeans & Co., Pendleton, Manchester.

WANTED, a duly qualified Dispenser for the French Protestant Medical Mission in London; salary £45. Apply to Pasteur Du Pontet de La Harpe, 16 Kildare Gardens, Bayswater.

ASSISTANTS WANTING SITUATIONS.

1s. for twelve words; 6d. for every six words beyond.

AS JUNIOR in Surgery; whole or evenings; aged 19. Rook, High Street, Homerton.

JUNIOR; Minor (22); 6½ years' varied experience. A. B., 69 Henslow Road, S.E.

OUTDOOR; 7 years' varied experience; aged 24; tall; good references; abstainer; or temporary, in or outdoor; disengaged. "Chemicus," 35 Filmer Road, Fulham.

TEMPORARY DUTY taken on moderate terms; good references; 25 years' experience. M. P. S., 50 Bold Street, Moss Side, Manchester.

AS JUNIOR ASSISTANT in good Dispensing business; 7 years' experience; aged 23. James, 126 Upper Street, Islington, N.

JUNIOR; over 4 years' experience; knowledge of Dispensing; good references; Midlands preferred. "Statim," 107 King Street, Hammersmith.

ENGAGEMENT wanted as Temporary with Chemists taking their holiday. T., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

IN good Dispensing Business (London or Manchester preferred), for afternoon and evening, from August to Christmas, by Student. W. M. Harrison, 29 Dixon Street, Warrington.

IMPROVER; 3 years in trade; passed Preliminary 2 years; height 5 ft. 5 in.; salary £10; references satisfactory. Address, "B.," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

CONTINENT or London preferred.—Assistant or Dispenser to Surgeon; 4 years' dispensing experience; highest references; fluent French; used to first-class English and Continental trade; aged 24; tall; photograph sent. Sydenham Hill, St. Stephen's, Norwich.

AS TRAVELLER—A Gentleman calling upon Chemists, Confectioners, &c., in North and South Wales and the North of England is open to a re-engagement with a good firm of Wholesale Druggists. "Alpha," 10 Fishergate, Preston, Lancs.

AS MANAGER OF BRANCH.—Advertiser can introduce a nucleus of business in the most rising London suburb; also number of American Specialities, quite new to England. Further particulars from "American," 2 Queen's Road, N.W.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading which can be obtained on application.

TO CHEMISTS AND DENTISTS.—Superior Mechanical Dental Work at moderate charges. Terms, H., 43 East Hill, Wandsworth, S.W.

AGENTS wanted for "Dr. Birley's Anti-Catarrh" and "Baby's Blessing"; exceptionally favourable terms to special agents. Write to-day for particulars to E. Birley & Co., 1 Cecil Street, Strand, London, W.C.

BOXES! BOXES!!—Cheap Light Wood Boxes, suitable for Chemists, Confectioners, &c., for sending all kinds of articles through the post; sample and price-list free 6 stamps. Write for sample, giving size you require, to T. Casbon, Box Maker, Peterboro'.

WANTED to Purchase, second-hand, the Fixtures, Fittings, and Stock (if necessary) of a Chemist's shop; must be in Town or suburbs; and only those having first-class stuff to sell need apply. G. S. Boutall, 52 Marchmont Street, W.C.

ACITY FIRM, calling on Wholesale Chemists, is open to represent a manufacturer or importer; would be prepared to facilitate business by cash payments, and find capital for holding stocks; firms of high standing alone treated with. Apply, A. B. C., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TRAVELLERS.—A London firm doing business with Chemists in all parts of the country are just about to re-arrange their districts, and will be pleased to hear from Travellers who are open to another commission; liberal terms will be given. Address, B. A. C., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TO STUDENTS.

MR. JUDD, who is going abroad, offers, at once, complete sets of his Aids to the Minor, 7 in number, for 5s. 6d. post free, published at 10s. 6d.; orders should be sent at once. H. Judd, 31 Regent Square.

STUDENTS' AIDS TO EXAMINATION.

PRELIMINARY.—Arithmetic and Metric System, 1s. How to Write an Essay, 3d. Caesar Simplified, 1s. Knotty Points in Latin Grammar, 1s. 6d. MINOR.—Equations Simplified 1s. Illegible Autographic Prescriptions, 1s. Notes on Dispensing, 1s. Prescriptions given at the Minor, 6d. "Chemist," care of Mr. J. Edwards, Wye Kent.

PRELIMINARY AND MINOR.

ALL STUDENTS who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hills Prizeman), Chemist, Hastings. Established 1872. References to past and present Pupils. 32 Pupils passed the last Examinations.

A VALUABLE SPECIAL AGENCY.

DR. BIRLEY'S PREPARATIONS.—Large and Ready Sales.—48 page Pamphlets, gold covers, show-cards, &c., free; write to-day for samples. Gordon Murray & Co., 17 Castle Street, Holborn, London. Sole agents for Great Britain and India. "Baby's Blessing" and "Anti-Catarrh" may also be had.

DENTISTRY.—Mr. J. W. MARTIN, Manufacturing Dentist to the Profession, 46 Beckenham Road, Penge.—Best material and workmanship guaranteed; terms on application. Instruction given in all branches of surgical and mechanical dentistry; registered gentlemen, who have not had the advantage of a good dental education, are rapidly passed through a full course of instruction, which will enable them to practise dentistry in all its branches, for a fixed and inclusive fee.

"NOTES ON DISPENSING," for Pharmaceutical Students, by George Stirling. New and enlarged edition. Copies notes on Mixtures, Emulsions, Suppositories, Difficult Pills, and Excipients, with an easy method of Pearl-coating. Interleaved for M.S. notes. **Post free 13 stamps.**

"DOSES OF NEW B.P."

Compactly arranged for vest pocket. Easily mastered, convenient for reference. **Post free 6 stamps,** from John Gower, Publisher, 47 Sigdon Road, Hackney, London.

Estab. 1875. **OTTO WOLTERS,** Estab. 1875.
MANUFACTURER OF
ANALYTICAL, VACUUM, AND BULLION BALANCES.
Wolters' Improved Short-Beamed Analytical Balance,
A SPECIALITY. Assay and other Weights of every Description Made to Order
Balances for Exportation.
55 Up. Marylebone Street, Portland Place, London, W.

EXCHANGE COLUMN.

Limited to the Advertisement of Surplus Stock, Formulæ, Addresses Wanted, and Articles Wanted.

TERMS.

No Advertisement inserted in this section for less than Sixpence.

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of 4d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays 1d. per word, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to "The Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C." and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, as e.g., £1 10s. 6d.

DEPOSIT OF MONEY.—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us. We acknowledge receipt to both parties by post cards, and only pay the money deposited on the advice of the remitter. Whether returned to him or paid to the seller, we charge a commission of 6d. on any transaction of £3 or less, or 1s. if above that amount.

Remittances payable to **EDWARD HALSE.**

FOR DISPOSAL.

Drugs and Chemicals.

Half-dozen 1s. 1½d. Warner's safe pills, post free, 3s. 9d. Willis, Chemist, Stockport.

Pot. iodid. ang., guaranteed pure and clean, 10s. 6d. lb., carriage paid; surplus 2 lbs. left J. Walton, Dispensing Chemist, 311 Chester Road, Manchester.

3 lb. potass. iodid., 9s. 6d. lb.; 4 lb. ess. lemon super, 5s. 6d. lb.; 3 lb. bismuth. subnit., 6s. 6d. lb.; 2 lb. ol. caryophyl., 6s. lb.; 3 lb. Aleppo scammony, 16s. lb. J. C., Lingdale, Skelton, R. S. O.

Proprietary Articles.

Drugs and patents, cheap; list by return. 241/36.

Apparatus.

Maw's displacement apparatus for sale, capacity one gallon, price 25s. Foster, 107 King Street, Hammersmith.

Educational.

Kirke's "Handbook of Physiology," with 400 illustrations, 1876 edition, half bound, cloth sides, equal to new, 15s. post free. Foster, 107 King Street, Hammersmith.

Literature.

Shakespeare complete, 1 vol., 2s. 6d.; Macaulay's "Essays" and "Lays of Ancient Rome," cost 7s. 6d., 4s.; Phillip's "Materia Medica," cost 21s., for 14s., nicely bound; Cassell's "History of India," cost 30s., 2 vols., 14s.; "The Sea," 40s., for 22s.; all new; half leather. William, 24 Phippen Street.

Shop Fittings.

Exhibition Show Case, ebonised, gilt, and polished mahogany, 3 ft. 6 in., 3 ft., and 2 ft. 6 in., glazed with plate glass, and ebonised stand for same; cost 20s.; for immediate cash 12s. Apply, 69 Parliament Hill Road, Hampstead, N.W.

Glass Bottles.—Job lines.—About 6 gross each 3-oz. opal and turquoise blue pomades, screw nickel-capped, 18s. per gross; 10 gross 4-oz. ditto, 20s.; 14 gross 2-oz. white flint pomades, screw nickel-capped, 13s.; 4 gross 4-oz. eau de Cologne, 10s.; 20 gross stoppered smelling salts, same shape as Godfrey's, 24s.; 10 gross each 1, 2, and 3-oz. turquoise covered pots, 16s., 20s., and 25s. per gross respectively; all best quality; sample of either kind post free 4 stamps or of each line 18 stamps. Address, Hearn, 381-3 Kingsland Road, London.

Formulæ.

Send for my list of recipes, cheap and reliable. "Chemist," Edwards, Wye.

Extraordinary Offer!—For half-crown Postal Order or stamps, following recipes post free (as sample):—"Herbalade," a concentrated compound botanic extract (like Mason's), for making aromatic herb beer, at 4d. gallon, delicious, appetizing, sparkling; "Tic Specific," infallible tincture, acts like magic, quicker than tonga; "Hop Tonic" (instant), splendid preparation in every respect, costs under 1s. lb.; "Spring Blossom," most lovely and enchanting perfume (resembles Gosnell's), adapted for Jubilee or local name; detailed list free. T. Brooks, Chemist, Lenth.

Miscellaneous.

Ammonia phone, 3l. 3s. size; post free for 27s. 6d. Robinson, Chemist, Myton Place, Hull.

Botany.—The indigenous official plants of the Pharmacopœia, on cardboard, 7s. 6d. Higginson, New Ferry.

Tank, galvanised iron, brass tap, 18 by 18 by 13; sound, good. H., 70 Monier Road, Old Ford, London.

Microscope slides, will divide collection, 5s. doz.; interesting variety; list. H., 165 Hagley Road, Birmingham.

Rubber stamp ink manufacturer's form, splendid six stamps, genuine. Francis, Chemist, Peckham.

About 6l. worth of the Yorkshire Veterinary Patent Medicine Company's medicines, in good condition, to be sold cheap; what offers? 242/8.

3 1-oz. ol. neroli (Lantier's), 12s. oz.; 1 lb. finest ol. santal ang., 20s.; cwt. Schering's redistilled glycerine, 1260, 70s. 56 lbs. finest Dalmatian insect powder, 90s. (sample two stamps); Winchester tinct. opii, P.B., 3s. lb.; 4½ oz. argent nit. cryst., 12s.; pair each 5, 6, 7, 8 silk elastic stockings, 6s. 6d., ditto thread, 4s. 6d. pair, quite unsoiled. "Chemist," 4 Commercial Road, Peckham, S.E.

WANTED.

Attfield's "Chemistry," last edition; state lowest price. Pole, 115A Stoke Newington Road, N.

7 lbs. opium, B.P. strength; sample and lowest price. Robinson, Chemist, Hull.

A 60, also 100, hove brass drum sieve; good condition. 85 Brook Street, Chester.

Good size dental showcase, to hang outdoors; must be in good condition and cheap. J. Young, Lower York Street, Wakefield.